SEQUENCE LISTING

<110> Horrigan, Stephen

<120>   Cancer Gene Determination and Therapeutic Screening Using Signature
Gene Sets

<130> 689290-73

<150> US/60/236,033
<151> 2000-09-28

<150> US/60/236,032
<151> 2000-09-28

<150> US/60/236,028
<151> 2000-09-28

<160> 583

<170> PatentIn version 3.0

<210> 1
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 1
gtaatatgga attagaaaca atttggcttt ttagagctga aactagaaac aacacatcca   60
ggaacagtag acttctattg tcttcaatcc ctaatgtcct agtgagtatg taccctatgg   120
agaaggcaga aatgacgtgg accaggactc cttacatgga gagtgtttta aaggcagttt   180
ttaaaaagcc cattttgtga aagaaaccag aaggctcgta attgctgtct gcactgtggt   240
ttctcctggg ggttggggag gggagtggat taaataaaaa gtttagaagg ccatagnata   300
aatatcgaaa tagtatgaat tttaatatat acttttaaag gggttaggca atgatgaaaa   360
gatatgactg ctttcctttc atttctcatt aaattaaaat tcccacaaaa gtgcatggca   420
tctttttgaa acactgctaa ttttaaagtt tgggaaggtt tatcttcata gccacaatct   480
ttgcnaaagc cttggtaccg gnaacaaggc tccagtctgc c   521

<210> 2
<211> 481
<212> DNA
<213> Homo sapiens

<400> 2
ataaatggtt tatttttaac ataagtaaat ttacaaatca aatgaaaaat gaaaaataca   60

```
aaagttcatg aatgaaataa aaaagacact ctcaaaatat taaaacctat ggaaagaaaa      120
taagtaatta atgaatgatg tttttgtttc caaatacaat gaagtgattt tttattagag      180
tccttgggaa tcatctaagt tacaatacag aagagaatta aataaatcgt atatgatttt      240
gtaattagac actctatata tcacagttct ttgttaacct gggcatggaa cgtccctata      300
gcatatattt aaaaccatta atttttttta aaaaaatttg agacatggtt tgttcttgtt      360
ctctaaatta tgtttcccca tttcccttga atgttctcta ttggccatct tctggaacat      420
taaaaaaaaa tcttgaaaca aattctcttg caatgatacg tatcacataa acttgatatg      480
c                                                                      481
```

<210> 3
<211> 357
<212> DNA
<213> Homo sapiens

<400> 3
```
gagcggtgga gggcgtcact gggtttcggc gtctggcaag cgattcagct gtctgctccc       60
tagcagccgg ccttcgggtc gggcgtcttc cccggctact gccgcttcag ttcttccggt      120
gtggccacga gtcgggttgc acttctgtga tccatcctca tcttctaaag atgcatcctg      180
acttatctcc acacttgcac actgaagaat gcaacgtctt gattaacttg cttaaggaat      240
gtcacaaaaa tcacaacatt ctgaaatttt ttgggtattg taatgatgtt gatcggggt       300
ggagagaatg cctctagagt gatgtacata gagaacagga gcccgagcag ggggcat        357
```

<210> 4
<211> 1086
<212> DNA
<213> Homo sapiens

<400> 4
```
cgcagccgcc cgcccgcccg ctcagcgccc ggccccggga tgacggcggc ccaggccgcg       60
ggtgaggagg cgccaccagg cgtgcggtcc gtcaaggtgg tcctggtggg cgacggcggc      120
tgcgggaaga cgtcgctgct gatggtcttc gccgatgggg ccttccccga gagctacacc      180
cccacggtgt ttgagcggta catggtcaac ctgcaagtga aaggcaaacc tgtgcacctc      240
cacatctggg acacagcagg gcaagatgac tatgaccgcc tgcggcccct gttctaccct      300
gacgccagcg tcctgctgct ttgcttcgat gtcaccagcc cgaacagctt tgacaacatc      360
tttaaccggt ggtacccaga agtgaatcat ttctgcaaga aggtacccat catcgtcgtg      420
ggctgcaaga ctgacctgcg caaggacaaa tcactggtga caagctccg aagaaacgga      480
ttggagcctg tgacctacca caggggccag gagatggcga ggtccgtggg cgcggtggcc      540
tacctcgagt gctcggctcg gctccatgac aacgtccacg ccgtcttcca ggaggccgcc      600
gaggtggccc tcagcagccg cggtcgcaac ttctggcggc ggattaccca gggctttttgc      660
gtggtgacct gagcggctcg gggcgtccca gcgacgcggg aaggggcagg gcgctgacct      720
gctgctgagc tggctgggct ggacccggtc cctaggctgt gaccgccgaa ctccactgca      780
acagacgggc gccaccaaag ccaggccctg aggcctggga gtcctggact gagaaagggg      840
gttcctgggc ccacctgctc tgtgtagggc tcgtcctgcg gtgcccgaga atcactcgct      900
aacccctatg cccggtcccg gaccgacatc ctggagccgc ctgtgcagcc tgatgccccc      960
tcgtggctgc tcccagggct gcacctgcca ggacctaatg ttcttaggtc cctctggcca     1020
gaacccacac ccggccccctt cccacctgtc atactggtaa ctgtaacaag aaaaacgaca     1080
tcactt                                                                1086
```

<210> 5
<211> 486
```

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 5
```
tagcaccatg atcctcgcgc tggagctgtg tgaggagatc gtggtctatg ggatggtcag   60
cgacantanc tgcagggaga agagccaccc ctcagtgcct taccactact ttgagaaggg   120
ccggctagat gagtgtcaga tgtacctggc acacgagcag gcgccccgaa gcgccaccgc   180
ttcatcactg agaaggcggt cttctcccgc tgggccaaga agaggcccat cgtgttcgcc   240
catccgtcct ggaggactga gtagcttccg tcgtcctgcc agccgccatg ccgttgcgag   300
gcctccggga tgtcccatcc caagccatca cactccacaa aaacatttaa tttatgggat   360
cctgcctcct gccacgtgct gggtgggganc ttaaggttcc ttcccacccc attgtgggcg   420
acatttggag ccattttcag gcttccattc cctgagtaat tcatgggcat tttgggggtt   480
cancca   486
```

<210> 6
<211> 1515
<212> DNA
<213> Homo sapiens

<400> 6
```
ttttttttt ttttcatcag gtcagagcca aaggaaagct tgaaaaatga agacattagc   60
aggacttgtt ctgggacttg tcatcttgga tgctgctgtg actgccccaa ctctagagtc   120
catcaactat gactcagaaa cctatgatgc caccttagaa gacctggata atttgtacaa   180
ctatgaaaac atacctgttg ataaagttga gattgaaata gccacagtaa tgccttcagg   240
gaacagagag ctcctcactc caccccaca gcctgagaag gcccaggaag aggaagagga   300
ggaggaatct actcccaggc tgattgatgg ctcttctccc caggagcctg aattcacagg   360
ggttctgggg ccacacacaa atgaagactt tccaacctgt ctttggtgta cttgtataag   420
taccaccgtg tactgtgatg accatgaact tgatgctatt cctccgctgc caaagaacac   480
cgcttatttc tattcccgct ttaacagaat taaaaagatc aacaaaaatg actttgcaag   540
cctaagtgat ttaaaaagga ttgatctgac atcaaattta atatctgaga ttgatgaaga   600
tgcattccga aaactgcctc aacttcgaga gcttgtcctg cgtgacaaca aaataaggca   660
gctcccagaa ttgccaacca cttcgacatt tattgatatt agcaacaata gacttggaag   720
gaaagggata aagcaagaag catttaaaga catgtatgat ctccatcatc tgtacctcac   780
tgataacaac ttggaccaca tccctctgcc actcccagaa aatctacgag cccttcacct   840
ccagaataac aacattctgg aaatgcacga agatacgttc tgcaatggta aaaatttgac   900
ttatattcgt aaggcactag aggacattcg attggatgga aaccctatta atctcagcaa   960
aactccacaa gcatacatgt gtctacctcg tctgcctgtt gggagccttg tctaatttca   1020
gataatggtt agcattacga tggctactat aaataaacca ttcttactgc tctcttccaa   1080
aacaaaactc agcatgatac tttgagattg tgttctgaga gatgatatga ctacataaaa   1140
tacaattaaa aatgttataa tataatgaaa atgtagtaat ttaagaaaac accagatgag   1200
ttaggaataa acctataaca tttacaaaaa gagcaaaact aagtgataga aaatatttca   1260
cacatgttct tatagatcat gtatcacttg caagttttag gagttcatat cctatatcat   1320
ttcaaattaa gtacataata aagtaaaatt ttgaaatgaa cactttaggt atttttgcca   1380
agatttagat gtttttaatt aaacttttct cttccttttt ttttcactaa ggcatgttta   1440
ttcccctaat ccattaaaga gcatgaaaaa aagaataaat gtatttgaaa aaaaaaaaa   1500
```

3

aaaaaaaaaa aaaaa                                                        1515

```
<210>  7
<211>  480
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  7
gggaagttta ctgggccatc acagactttt gttctagtga ttgtatgtat taggagtcat     60
agcatgccct acggagatct ggattcttat acactaagat gtgtcttaag aatcacagtg    120
cgtgcttcat ccctttattg aagaacagaa aattatgact actctacaag gtggataata    180
ttttggtacc tgtggctggc cacagccctg ttcctcaaag ctgaattgat agatttctct    240
ttgacttcca agacctagca gttataaggc accttgaaat aaattgtttg tgcctggaaa    300
tgcagggagg gcaatagctt tgtaaattgg nttacatttt tctccttgaa tttttctagg    360
gtcctagtgc ttccgaatca tttaatggca ttgtcggata tcctttaca tttcaattgc     420
aatccatgaa attacattta gaagattctt agtacttaac ggtagtcttc ccatgaattt    480


<210>  8
<211>  416
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  8
atttcagang aagtttatta agaggtttta ggctttaagc atatgtgaaa agcaaaaatt     60
acattttaaa gtatataatt tgcattttcc accttctcaa tgccaatgaa atattctagg    120
agactctata agataaccaa ttgattttct actactccca aattttaact ttgtaattta    180
aagaggaata ggcaaataga gctgctgtgg ttctggttct ccctgcagga tgaagggggc    240
ctgcaaaatg tctcctactt ccattctagg tcattcagca aggtgccttc ctctggatgc    300
actgtctgta tacttttgcc atgttgcatc acataatgga ttctggccca ccttacacca    360
ttttgactgt cagtaaaaga atggtatggt ggcccatttc ttcntttatt aatagc        416


<210>  9
<211>  371
<212>  DNA
<213>  Homo sapiens


<400>  9
tttgacacgt gaagggttat ttatggttat gatgaccctg tcctgcaacg agggactggc     60
agccactact gaggaggagg gtcccatctc tctcctgtcg gctttcaccg aggtcacagc    120
cagacgtggg gcaaaggtgt tccctgtcct acccagccat tcctgggcct gccgcctagg    180
ggctcacagg gcccaggagt ccccagctca caggccaggg catcaggcca ggcgcgctcg    240
gtgcacaccg cacctgtgga ggacctgggt acactcagga gaccaagagc actggcgggt    300
caggatggtt ggcgttcagc tcctacgggg tggggagaag tctgtagccg agagcccagc    360
```

4

```
cccctcctgc c                                                                    371

<210>   10
<211>   419
<212>   DNA
<213>   Homo sapiens

<400>   10
aagtattctg  tcccttttaat  agctttgttt  tagggtaac  tccctcgcc  ttgtgggggag      60
gcttaggacg  ggcgggtgca  atcctcgaag  gggagtctca  gcgaccatgg  gggacaccat     120
ccacatgcag  gcggtagttg  gggcctcggc  agcgcctctc  tggggtgccg  ggggtccctg     180
ttgcccctca  gtgccctgtg  gcgcaagggc  tgcaggggcc  ggctgttacc  gctgaggctc     240
tggaagatct  gagatggagg  attctggctc  aggagtctca  gggagtgcat  ctgaagggag     300
gtgatattga  gggcccggtc  aatgaggatc  caggtgacag  tctcggagca  gggcggggtg     360
ctgagagagc  cctgataggt  gatgaaaccg  aagattcagg  gaacaggagc  tccaggctc      419

<210>   11
<211>   270
<212>   DNA
<213>   Homo sapiens

<400>   11
tacagggcaa  cccaccccta  ggcaaagcct  cggcctctcc  cacctccccc  acgtcatcac      60
tgagctgcgg  cacgcagagg  tgccagccaa  ttccgaggag  aattgggtcc  aatagaaata     120
tttacaaata  accagggggc  aggtgtgccg  tgatcgggaa  tcgtgaggga  actgagtacc     180
aggggggccct  tggctcccaa  cagccccagg  ccctggggcg  gacttggcac  aggacccaag     240
agggaactgg  ggcattgggg  ggccggcaga                                        270

<210>   12
<211>   255
<212>   DNA
<213>   Homo sapiens

<400>   12
tttagtttag  caccatttat  taagtgatct  cagctgttgt  tgtagctgct  gcgtgtcacc      60
gtgttcttaa  aacataaaat  gctcttccga  ttcctcttgt  ccaggacaga  aggatcttcc     120
aggtagcacg  ccaacagaac  aagagactcc  gatgacgcca  gcttcaatga  tggtgccatc     180
cagagaggga  gagggtcatg  gcacattcaa  ccgcggcttc  cagaggtttt  gaaaaaggag     240
cctttgggggg  cccag                                                        255

<210>   13
<211>   358
<212>   DNA
<213>   Homo sapiens

<400>   13
caggttgaat  aaaatttaat  tgataatgct  ttatattaat  attctctttt  gcatttaaat      60
attatatgaa  tactacaagc  atccaacaag  aaataacctt  cataaattag  cataatttat     120
agcaggaaac  ccaaataaac  taaacttggc  tgcctaaaat  aatttgtcta  aagggggata     180
tgctctttgt  aagtatcatg  ctgataaaac  cataaaaatt  cttttagagg  aatgaggatt     240
aaaatgaaat  ttctttatga  cacggaaaaa  aataataatt  tgtctaaaag  tgtaaaattt     300
```

5

taaaagcaaa cattatacac ataaccagca caattatttc catcttaaaa cattggtt   358

<210> 14
<211> 266
<212> DNA
<213> Homo sapiens

<400> 14
atggctaatg gtgacacact ttattaattt aaaaacacgc ccttcccaca tagtgcgtga   60
ggcatgtgca cattttccta gaaggacatg aatagtgatg tggaggtacg gtggaggtca   120
ggcatctaca gggtcattcg aggaggaaca gattcaagct ttcggacgat cagtgttttg   180
taaatagcag catcatcaga tctaagacaa cattggacct ggcagggcct tttctttggg   240
tggcattaat tactccagat tcagac   266

<210> 15
<211> 287
<212> DNA
<213> Homo sapiens

<400> 15
aacgtaaaca caaagtctca tttatttttg tctgaagcac acaggagctc actcagcaca   60
ataacagtaa gcgaatcata caaatattga gaaaaaatgt tcctatgaat acatacatgt   120
atattcttaa gagtagcgat caggagttta acaacaaatg taaagtggtt ttctctaaag   180
aatgctttct gacaggcttt tgggttggaa atggacaggt aaatcactgt cacataacag   240
gtaagctaag aataacttct gttacccaag tcatttgaac cctgtgg   287

<210> 16
<211> 291
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 16
tttttttttt ttcttgtggc cattcccagg tttaattaca aaccgatccg aacatcccat   60
ctgggtcgac agctgggagg gcaggattgg ggggaagctg ctgggcgcac ggncnaggca   120
accacgtcct tcccctgctc ccaggtggag taggggcctc acgactgcct cgatatccac   180
tgtcttggag cagcctggct accccgagat cccaggtgac ctcaaggctg cctgcacttc   240
agcgccanat gntatcctgg cctgagaacc ccaaagcacc ttaagcgtcc c   291

<210> 17
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

6

<400> 17
aaaaatctat caccnaagaa tattgaaaga aattcagtaa aacaagatgt gtctcatagt   60
taaggagaga cataaaaata aaaatgtcat ttaacagttt gaatttagga tttactgtta   120
atcagaaaca ccgaggaggc ttaactcacc ttttaattga gaatgtggga aggaaagaga   180
gtaaacacat taactttagt agcagaagtg ctgctaaaag aaatacgtga aaggaaatgt   240
aacagacaaa ttggctttta tcccttttga taccaatata tgtgtataca agtcataaca   300
ctggtaagta gtgtcttaag ggccaaaaat ggtagcttct tggtttataa aacctaatgg   360
agccacttgg aaaaaattta cactcnggaa attaaataag gaccctaata atg   413

<210> 18
<211> 293
<212> DNA
<213> Homo sapiens

<400> 18
ctcttctaat tcattgtttt tcttttaaac attgtgcaca agcttatatt cacatagaaa   60
gcatatacat cttataaatc acagactttt ttttaagtag tactccagtt tatcagctca   120
ttttacacac atatttaggc aacagaatgt ataaatctac cgcaatacag aggacacact   180
atccagaaaa gaatgaacaa agaacaggct gttgcaaaaa tatttagtcc ctttacacat   240
atagtcaaac ttcattaatg caaaaaatgt agtggttatt aaatgtctga aag   293

<210> 19
<211> 400
<212> DNA
<213> Homo sapiens

<400> 19
tttttttttt ttttttccca gatcaggaag ttttattgct gacatgcagg aagagtcccc   60
atgtagtaca aaaatatgtc tttatacaaa cttttttgtg actttttccg tttctttaca   120
ataggacttc tctcagtcgt gtgacaccca gtgagggctg acccatcctc ctctcctttg   180
cttcaccagg aatgtcatca gacacatggc ttgaccttgg aagggcccag tctgtctgac   240
agggctttgc agacccggcg gctattgctt tgaaaaggag gagaaagacc acgcacgggc   300
agcagctggg agggacccgg tggctggctg agagggggct ccgctggcga cgggccctgg   360
caggctttca ggccctcaca ggaggacagt caagggctgg   400

<210> 20
<211> 149
<212> DNA
<213> Homo sapiens

<400> 20
tttcacacgc acaacttggg aatttaatct tcacttttcc tcccataaat atagagtgag   60
ggtgtgatac cagcccagc ccagtctcct tggggtctgc atctctgctt cctggcagcc   120
tcttgagtcg acttggggat ttgacgtca   149

<210> 21
<211> 266
<212> DNA
<213> Homo sapiens

<220>

7

<221> misc_feature
<223> n=a,t,g or c

<400> 21
```
tttattatc cagacacacg tatcagagcc tgctaacatc cagttgtggg aagagcagca      60
agcagtacac caggagccac aggaagagan taaaatacat catatccggc tgctggacaa     120
gctgtgtcag ggagtcactc tgcgggctgt ggctccccag tgacatggct tctcctgagc     180
tgttggcctt cctacagaag aaacacagag gaaacgcagt taccaagcag gttcccaggg     240
aaagtggacc ccacccantg ctaccc                                         266
```

<210> 22
<211> 510
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 22
```
gtactcatta atcccctcct caatttttaa cagaattata aaagcaaagt caaaaggtcc      60
ttcaggatga ctgggaggct tcctaggcta acttttgcat ttgaaaatgg aaaaaataaa     120
ttacttgata tttgtgataa gactaagatt tcttaaaagt ctgcacatca atatattacc     180
tgggcttagg agggtgaggg cacagtatcc atctgcaccc tctcctcgta ttttttaaaa     240
acaggcaaaa tatgtaagaa aaggctggtg cacgttggaa gacagagcgt gcctgtctat     300
gccagtgctg ctgtgccctg cagcctgggn aggatgggag tcggatgctg gggcctcatg     360
nccacttagg gccaataaca tactcaagac tctacagccc tttcaccagc aaagtatgnc     420
ctgaggggaa ccactgggtg ttgggagttg aaggcacaca aagcaggggc taaagggcaa     480
ttggggtttc acggtgcagg cgccttgagg                                     510
```

<210> 23
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 23
```
ccccgtcagt caatcttatc tggtaatggg atcattactg ttatccagtg tcaatggtct      60
cagtagtatt tccattcaaa aataatttag cttttagatt aaggatttct ctttttgttt     120
tattaaacat tgaaaggtgg gactttaaaa aatggtataa atctagattt taaggattct     180
tttcttacaa actgtctcag cttttttacaa gaaatgttta ataccaaaa tgctgctcag     240
aaaatttaaa gtttaattgc ccgtggttat tctactgttt ctatcctaat gtgtgctcct     300
ctgtactgcg tgtgtaagac gctcagttca tctgaatgtt tggatgggaa gttttgtgtt     360
gagcctcagg natagcactg gaccagccca gggcgcttgt ggcagacggg aggggngatg     420
ggagaggcag ctggtttttt ctgagggggg tcttggccaa acgcaggcag ctggccacaa     480
atgggcttgg ggggtaac                                                  498
```

8

<210> 24
<211> 335
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 24
```
tcttcccatg ttgcccaggc tggtctcaaa ctcctgggct caagtgatcc acctgcctca      60
gcctcccaaa gtgccgggat tacaggcata agcacctgaa cccggctgtt attactattt     120
ttatttacaa ttaaggaaac caaggatcgg aaatgtttta ctttatttat aaattgccca     180
acgtggagaa tagcaaagcc aggattcaaa cctgggnagt ctggctccag gntttacact     240
ccaaatcacc atcctatgct gcagtctatt ttattttatt tttttagaca gggtctcgct     300
ctgttgccca gggtngagta ccagtgatcc ctncc                               335
```

<210> 25
<211> 381
<212> DNA
<213> Homo sapiens

<400> 25
```
tttttttttt ttttcattca acaagtgttt attgagcatc tactacatgc cagacactat      60
tctagaaacc tgggaaagga ggggttaggg tagcttggag ctgtcccagc tgtagctctg     120
tctcccagaa gtgaggtctg caggggaaca gggtctgggg gtcctcctgc ctgggagagg     180
gaaggctgag tgtataaaaa ggtggaagcc tctagaaatg agaaggctgg gtgtgtggga     240
ctcatgctgg tgccttccca gacgaaggag agggcccaga ggaggcagct tcctggagca     300
gagacggcag caggagcgcc cgtgcccggc atcacctcct cttcagcacg gatatgcagg     360
acttcttgag gggcccgatc t                                              381
```

<210> 26
<211> 463
<212> DNA
<213> Homo sapiens

<400> 26
```
tttttttttt tttttttttt ggtggtttga aataatcttt attttgtaaa catctgtgtt      60
taaaatagat gaaccctgct cacaattcat atatggaccc gagacacagt acacgaagtt     120
cacccgtcac agggagatag tggaggctca ggagcaggtg gcgtgcctgg ggctggatgg     180
agtctcaaga cagcaggtgc agaggtggtg acgagtaaac aggccagcag aacctgctta     240
acagtctggg cctcaagaca taccccaggc caccaaaagt ttagggtgag cgtactgcac     300
cctaaaatcc caattctcct tctgctccca tacctttttcc cagtcatggc ccttgtggat     360
agggcctatc agtctataga atcctgattc catgttttcc cttccagaac ccctagggta     420
cagtacaaat atagtccttc tttcctgagg ggggctagga gag                      463
```

<210> 27
<211> 454
<212> DNA
<213> Homo sapiens

9

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 27
caggtggagg tgagtttaat ggcggnagct cacagccctt tcccctgggg ccaactcccc   60
acaacagagc agggctgggc agcagaagac gttaaaaccc aaatcccgac agaggcacag   120
acctgcacat gcgccacacc cacacacata ctcaggggac tgacaggaca catgggacac   180
agacccgccc tgcctgtgnc agagtcctgt ccaaggcaat ggcgtaggct gcgctcagtt   240
catccgagtc cctccccagc tcactggtcc aggccaaggg atgggagagg ctttgagtct   300
agaccttgta cagcgtctgc agcagactgt ggcgggcgaa ggagcaggat tccagggcgc   360
tgttgggctt ggtcacgaac gccagcagca ggggtgcaag ggccttgggg aaatagtcct   420
gctgcaccat gtggttcagc gccatcaggg ggcc   454

<210> 28
<211> 329
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 28
ttttttttggg atgcagcact ttctttattg cccatccagg gaacagccaa gccagctcca   60
tctgcattct ggctgcagcg tgtacattag gggactcagg ggccacagtg tgggaccgtg   120
cacactggca aggcactggc ggatntgggc aggccagttg gacatggata gatgagaatg   180
acaactcaca gatgtcctag cttctgctgg cccagctgcc ancactgnca tcacccttttt   240
gcccagcatg tgtgcattgt cacccaaaac atcttgaaac ttgccattag tgaggcattc   300
aacaaagaag taagctaagt gagtaggaa   329

<210> 29
<211> 427
<212> DNA
<213> Homo sapiens

<400> 29
tttttttttt tgagctggag ttttgctctt gttgccaggc tcctgagcag ctgggactac   60
aggcatgcac caccatgcct ggctaacttt gtatttccag tagggtttct ccatgttggt   120
caggctgatc ccgaactccc gacctcaggt gatccgcctg cctcagcctc tgggattata   180
ggcgtgcact tgcgcccagc ctccagtttt cttttcttta gagcagcggt tttaaatcct   240
tttggcttca agttctctga aaatttacta tgctctccac aacaagagct cccattttcc   300
acagacacag tcaatgtcag tcagcttgta ttcaggagga cagggcagag ggatcccagt   360
ggcacttccc atgggaagac agaagagagt gggccccaga gatggaagga ccccagtgtc   420
atcacca   427

<210> 30
<211> 426
<212> DNA

10

<213> Homo sapiens

<400> 30
```
tttgcatcca gttgacaaga catttaaggt gtttatcagg atcatgccct ggccccagct     60
tcccaatacc agctgttgaa aagattctct ctcatctgga gagaactgga gtgcacagtt    120
cacccacgtg gctccgggtt attagttact gtgggctggt cttggtcaga ggcatctgca    180
gctggagtca cagctggact tgcagtggac gtggcagtgt ctggggaggc ctgggatggt    240
cttggagggg gatcgcttgc tgagacagac tggaaatact gcacagtcca ggcgatcaat    300
atggatagca gaaaggttcc cagaaagtag atcagggctg agtgcaggat agcaccccag    360
agaagccgca agtgcaggta aagccaggcc aaggagcagg ggctgaagga ctcctcgtta    420
ctgtga                                                                426
```

<210> 31
<211> 456
<212> DNA
<213> Homo sapiens

<400> 31
```
ttttgggcca cactgagtga attttaatgc aggatggaag cacacagatg ggtgatcagg     60
tctctcttta ctgaaacaca gaacatgtgc caaggtgagt ccaaggacac ctctgggaac    120
aggtgaagcc cctccccaca catacactcc ggtggatgtg agcgagggtc ctgttgccac    180
atctggggtc aggggcttgg acatgctgcc cttcatggga accttctggg tacctctcag    240
cacagtaacg cagctgcagt ctgtcggtgg gggcccaggc taggggcagc accctctttt    300
ggcatacggg acatgcctgg ctgcagctga tgtccgttag cctctcctga cacgcagtaa    360
ggagacctgg aagtgaggcg cgtgggcgtg gagttcccgg tggagcttgc tgcatcagcc    420
tttcttgcca ctctggggtc agtgaagtct ttcccg                              456
```

<210> 32
<211> 386
<212> DNA
<213> Homo sapiens

<400> 32
```
aattttaaag tgtggtttta ttaatgcact tcagggtaag tgccagtctt attttagctt     60
cttctggaag aaatactacc aattataaat aatcacagca acattttcat tagacaaaaa    120
ctgtgtgtgt gggtgtggta gggggggtatc atttatagca tactgcaaat ataaactcaa    180
ttcttgagct atattaacaa cactgagcaa caatatttct ttctaaaatt ttcttttctt    240
taaggcagat ctgtttatta ctaacatggt gcagtgtagt tttagtaaat ttactatttt    300
agtttctcag tgacaataac acagatggtc agaaaacagg caacaaaatc tcttttctag    360
ttcctctacc tggccaccat ttaaaa                                         386
```

<210> 33
<211> 240
<212> DNA
<213> Homo sapiens

<400> 33
```
agaattcgtt gtgcatttat ttaaaattta tttgttcata gctatacata tattatacat     60
gtatacctgc tcacagcata aagtatttca tgacatactt gtaagagtca gtgttctatg    120
aattcactag agaagttaca gcattttgat tatgatacac gaaaagaaac ccaagtcatt    180
tagcttaact ccttaatttc ataaaccaga aaactaaaat ccaagataga ttgggtgact    240
```

11

<210> 34
<211> 427
<212> DNA
<213> Homo sapiens

<400> 34
```
tttttttttt gaacactcac ttcaatttat tgcatatttt ctaaatgcac ctctctctct    60
cttctgaaag agagaacatt tcatcagaaa acgaacgggg tcttttgcct atctgatggt   120
ctcacacctt cacaacagct acaaatcctt ggaccagcca gggacagacc aactccaggg   180
ttctctgaca acagaagtcc tggaaaggct ctgcactcaa aacaaacccc tacaccaccc   240
caagggaggg ggattgtttc aggttcgggg agacgctaaa agaaattgaa cctaaactct   300
tcatcaggca tgtccagagt ggctttggct ctccatatag agcgaggcct gcagacccct   360
tggctcttct ttctggtggc tccatctaca ggttgcacct gggctgaata agcagcagct   420
ctgagag                                                             427
```

<210> 35
<211> 476
<212> DNA
<213> Homo sapiens

<400> 35
```
gttgtgtttt tctcagtgga tcagcttatt taattgatga ctgtacagtt aattcatgct    60
caaaaatcaa acattctaag cttctttcta tgaatatctt ccagaccaag attattcatc   120
tcatggtttt aaaggacaga atttcctgga gaatgttggt cctcttgtag gtgctactgc   180
agcaaagttg aaacaatcat acgtcagacc aaaatacaag tcagttcttc agttttcact   240
aattaaaatt aactctgtct aaataaatca actcttacca ccttcaggat tcatatctca   300
agtaagagac attcttactg accaataaca caaaatatcc caccctcagc actaggatcc   360
tcagttttga attctttcaa ccatttttgt caaaagcctt gctgtagcca ggtgtggtgg   420
cacattcctg taatctcagc tactcgggag gctgaggagg gcagatccat tgtccc        476
```

<210> 36
<211> 428
<212> DNA
<213> Homo sapiens

<400> 36
```
aataggttac ttgcaattgt tattgcaggc aacaacttgt acatgatttt atttccaaat    60
ccacaaaaaa caaatttat acaaatcagc actgtaaaaa tgtcaattac agccccagag   120
gctttgctgg cagaataatt gtctaaattc tagaatatgg gaaacaggtt tttttctgga   180
ttcatctttt tttttcattt tttttttttt acaaaaaaaa tttacaagtg aaatgttact   240
acaaaacttt ttataaggaa tttttgcaaa acatttacat tttaccatca actatttctg   300
ttttaaaatc attatgtaga tttaataccc tatgctgcac atcaatttat gtgggatgac   360
aacttagtga catgcataaa aaaacaccac aaggcattaa aatggagact aaaatacaaa   420
tattgttg                                                            428
```

<210> 37
<211> 193
<212> DNA
<213> Homo sapiens

12

<400> 37
```
tgttctactt ttaaagatat ttaatgatgt ttttcaaatc agtacaaaaa tttaaataca      60
aaaatgattt gctattgaca agtctcaaat ctgtcatggg aactcaaaca agttaccagt     120
ctgttcaccg ttcattgtat tctataaaat atttgataac agtcacccac tacagacatt     180
cttttccccct gtg                                                        193
```

<210> 38
<211> 421
<212> DNA
<213> Homo sapiens

<400> 38
```
ttattttgcc agtgcagaaa cgtttaatag aaataaaaag gtctgcatag agccgaggcc      60
ggagccaccc ctctgccgca catccagtac agagaggatt ctataaagtt cacacttttt     120
cattaagtag tagtagaaat acggtgaggc cctgagactg gcctggtgag cgaggaaagg     180
ccgctggggc gttccactct gcaggccggg gctgaaataa cccgagttcc gttctcacag     240
aaaggtgcgg ctgccacctc ttgacacaga ggccggatgg gcaggtgtcc tcgatggcca     300
ggccgtatca gggtacaacc gcagcagtgc aaggggcttc ctcaaggaca aatggctaaa     360
aatgtcacgg tgaaaatgtc atccccaaag agttcgttct ccctagaccc gtgggggcaa     420
c                                                                     421
```

<210> 39
<211> 530
<212> DNA
<213> Homo sapiens

<400> 39
```
tttttgaggt ttggtttttgt ttactgcgac atacacatga aatcgagtat acagtccatg     60
cagtagcaca gccattcgag aggacatcct gatgctggct ccagtgcaaa acagtcccag     120
caacgccgcc tgcttgccat cgctgccgcc gccactgaca ccttcaccat ggccacctag     180
cctgacttga agaggaggat tgcaacttga cccaagtaaa aatagatgaa gtgctttgtc     240
tcgtgtgtga cgtagctgcc aaaatttcgg cccacgatac aatgccaggt agggttatat     300
ttcttgtcaa attccttctt gatataggca gcaatgtcct tctctatatt gtacttctcc     360
atggcctgcg tggcgcagtc aacggcatcc tgttgcatgt cctcagacat gtctgcgttc     420
ttgatcactg ccttccggtc agacatggtg tgacactaca gaaggagcag agaggtaagg     480
ctgacaactc cttgctctgg gcagtgaaca ttagctgctg ggtgtggggt                530
```

<210> 40
<211> 418
<212> DNA
<213> Homo sapiens

<400> 40
```
ttttcctaaa atatttttta ttagaaatat agctttagta acaaataacc atttgatagt      60
tacataaaca tataacagat atgctctaca tgtgtaattt aagtacatta atatgagcat     120
tctttatggg tatacatcat ataaaaataa atcattttca tactttttta aatgttggca     180
ctgtaagtca caagaatgag ctactcagtc agtctcccta tttcaggaag cctttgcatg     240
gaaggacaga gtctctgtga agttctctgg gaagtaaagg aggcgctgat agggactgaa     300
ggctgcctta gctcagaaga gctcaaggca acaggcaat ttggggagag tcacaggcac      360
aggaagggcg tagatagaag atacgtaaaa tcaaatcagg aagttttgtt atattgtt      418
```

13

```
<210>  41
<211>  257
<212>  DNA
<213>  Homo sapiens

<400>  41
tttttttttt tttttttttt tttttttcagc aacctcggct gtatttattg atacaaggaa      60
gatcacccga gagtcaggga cgtggcggcg aggggccctg gaaatctcca gataccaaag     120
ctggaagggc gtggagtctt ctccagttct cctagtttac agatgttgtg acctaggctt     180
acaatgggcc tggggtctga aagcgggacg tgggctgcgg gggtcaaaga gccggtttgg     240
tggaggtcag cgccaca                                                     257

<210>  42
<211>  510
<212>  DNA
<213>  Homo sapiens

<400>  42
tccagaaatg ctttttccttt tatttcagaa gaaaggacat aaaggcagac acttcccccg      60
cccgctcccc accccctccca gctcctgcct cacccagaac tggagtgaaa ggccagggcc     120
aggaccaggg tcccataaag cttgcccttc ccccaacccт tccttccctc aaagtggcaa     180
ggttagaaaa aaattaacta tgttgttcct ccctggcact ggataaaggc cccactgcag     240
ccaaggagaa agagggggggt ccaggctccc ctcccaggca gagaagctgc cgtggctggc     300
taggggggagg gtggaggtag gttatgggac agagaggaca agaagtgccc tgaacacctt     360
ttccctttaa cctgacatat ttatatattt acagttatta gggagggaag gacatctggg     420
gtgacatcag ttctgcaaag gcagggaata aaagccaaat agcaccccca tctgggtcac     480
attttcctgc ctcctagctt ctaaaacctt                                       510

<210>  43
<211>  392
<212>  DNA
<213>  Homo sapiens

<400>  43
tggagcccgg gaagagaaga accaaagatg atacctggaa agcagatgac ctcagaaaac      60
atctctgggc catacagtca ggtggttcca aggaagaaag aaagcacaga gagaagaagc     120
tgcgtaagga gtctgagatg gaccttcctg aacataagga gccgaggtgc agggatcccg     180
accaggatgc caggagcaga gacagggtgg ccgaagtcca caccgctaag gagagtcctc     240
gtggggagag ggacagagac agacagaggg agaggagaag agacgcaaaa gaccgggaga     300
aagaaaagct gaaggagaga catcgagagg cagaaaagtc tcacagcaga ggaaaggaca     360
gggagaaaga aaaagacaga agggcccgga ag                                    392

<210>  44
<211>  394
<212>  DNA
<213>  Homo sapiens

<400>  44
ttttattttc tttgttatac gtctatttat taatgaaaaa gtatcaccaa catccattta      60
aaaataagca aaagacatta ataaacattc ttccaaagag gatatacagg tggcaactag     120
atacaagatg ttcaaatgtt caataccata aaataccaga aaaatgcaat aaaatcacag     180
```

14

```
acagatgcta ttatacagct attaaaacaa ctaaaattaa aaagactaac cataccaagt    240
atggcaagaa tgtagagaaa taagaaggtt cacatactgt tgatgagaat gcaaatggta    300
cagttaggtt atagtctggc cttgtcttta aaagtgacgc attcacgtac actgtactac    360
tgacccagga gaaataaagc atttctgcat atta                                394

<210>   45
<211>   340
<212>   DNA
<213>   Homo sapiens

<400>   45
ttttgcagct tccactcttt atttccaaag aatcagtgtc acacatgcag atcacaaagc     60
gggtctccct gtgctgcttc cttctgtgtt ttctagtctc tcccccaggg gctgcccagg    120
gccctcagga actgagtgtg ggcaagacac tgctgggcca gagggcacga cgcccacgtg    180
ggcccgtatt gcccaggcca tttggcagtg cagagccccc ccagcctcca gcaggagccc    240
cctggcatga gctctcccct caggggtcct gagcaacgtc cctgccaggg ctggtgggtg    300
gcagcggggg ggcagacacc tcgctgaggt cctgcagcag                          340

<210>   46
<211>   418
<212>   DNA
<213>   Homo sapiens

<400>   46
acaaagcagc accttgtttt actgagggta gaaaatagga agtccgctcc ctgcctcacc     60
cctcttaagc atcaaagctc agacgtcagc gggacttgaa gagtctcagc ctgggcagtg    120
cagtcacaac acctgggttt ccagccgccg gagttccttg accacaagat caatgttaat    180
aattgggtta aagtacaggg cccagtaaaa caaacagttg caaacaaact gagggatgag    240
gggccagaac atggccacaa aaagcccctg cgttgatact ttccagaaat ggctccacat    300
cctctgaggc acggtcttca gttcacttct cgaccagatt ctccaaaagg agaataattc    360
cagaactgag agtaacatag cattgatgat gagaaaccgt gatgtccagt aatggacc      418

<210>   47
<211>   453
<212>   DNA
<213>   Homo sapiens

<400>   47
tttaaaaata tcttaacacc tttacttaga tctcatctca tacttgtagc atttcttcaa     60
atttactttg aaaaaagagc ttcactgtgt gtggttgtca tacacattct tctacccaac    120
catggacctc tttcttcctc tcaggcgcac ttcatctaat ttttttagca ctggcctggc    180
cttttttggag gaggtggagt agctcttcag aaaggcttca aacacagttt cagtgttggg    240
atgggtactg aggaaggcct tctccaggac atagaggtct actcccttat cctctggaag    300
tgctgaaatg aaactcagcc caaagtctat gagcacaatg ttcagctgtt ccagggggggg    360
tttcaggagc atgttggagg tggtgagatc accatgaatg aggtcttcat cgtgcattcg    420
agccaaaacc tgcccaattg tcttggctaa gtt                                 453

<210>   48
<211>   411
<212>   DNA
<213>   Homo sapiens
```

15

<400> 48
```
tttttttttt  tttttttttt  tttgtagtaa  aatggccaga  tgtttattat  tttgttacat       60
tatttccatt  gcatattcca  catctattta  ttttcacttt  tatttattat  cattattttt      120
cacaaaggta  caaggaattt  cagaaacaac  attaaaacaa  tcattcaaac  tgtttcaggc      180
acggtttcaa  ttaaaagcat  agatttgatt  tctgacttcc  tgtttccttc  tatgatacaa      240
tctcaagttt  tgtttcagga  agcacaatta  ttgtagcgtt  aaggtggata  cctgccaaag      300
ctcatctcct  agtgctgtcc  tcattctcag  aaagttcctg  agtcaacaga  aaggggacgc      360
ccagggtatg  gaataaggag  atgagagcat  gctctgccaa  ctggctggga  c               411
```

<210> 49
<211> 269
<212> DNA
<213> Homo sapiens

<400> 49
```
ttttttttta  tccagagaga  ttaatacaca  gattaataca  caaaactttt  gtaaatagca       60
ttccagttca  aagttgcttg  tgatcatagc  cacgtgtgaa  ccgttagaca  agtgtatgct      120
atgccccaaa  atgttttata  attcttcagt  gcagtttctt  actgatgttt  cccttaaaat      180
taaggcttaa  tgaaagagaa  atccatagta  ttatgaactg  attttcttta  gcttctgaat      240
taagtgcact  ctttccaaaa  tcaagtggt                                           269
```

<210> 50
<211> 174
<212> DNA
<213> Homo sapiens

<400> 50
```
tttttttttt  tttttttttt  tttttcacc  atttgggacg  tctttattat  ggatccgtcc       60
actcttccag  gagcagtagc  ccttctaaga  aaggggtggg  aagaaaacca  gcctaccctt      120
caagctgact  taggatgcaa  tggtacagac  accagccttg  ggggagggtt  ctcc            174
```

<210> 51
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 51
```
gatcagcagc  cgagaaaagt  acatcaacaa  tcagcttgag  aatttggttc  aagaatatcg       60
tgcagctcaa  gcccagctga  gtgaggcaaa  gnagcgatac  cagcagggaa  atggaggngt      120
gacggaaaga  accagactcc  tctctgaggt  tnnggaagaa  ttagaaaagg  taaaacaaga      180
aatggaagaa  aagggcagca  gcatgactga  tggtgctcct  ttggtgaaga  ttaancnnng      240
cttnncanaa  ctgaagcaag  aanctgtagn  gatggacatt  aganttggca  ttgtgg          296
```

<210> 52
<211> 409
<212> DNA

16

<210> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 52
```
cagcaactgg tnactgttta tagaaatggg gaaagggaa attaatattt gtttaaaatg      60
ctttgagttg cctgatagac atccaagggg agcagtcagt ttctaagcaa aagactgcgc     120
ttttgtggac agtcctgtgg cagaggattg gaatttggga gccattggca tgtaggtggc     180
atttaaatta tgtgactagg tgaggaggga agggttgtta cctagggagt ggacattgat     240
ggagaagact agtgactaag ttctgaggca agaccctcca gcgtgtagat ggcaagcaga     300
gcaggaagcc atttatgact gaggaaggag accactgatg gccaggggag cngaaaccng     360
gggccatgta attgtcacca aaattaaggt agcatgcatn gggtttntnt               409
```

<210> 53
<211> 332
<212> DNA
<213> Homo sapiens

<400> 53
```
tttttgcaca atacttacga tttaaaaaaa ttacatgatg gcttcttttt catcatttaa      60
gaagtgaaca aaaagtactg gtcaactttt aaaatatgag tggtatgaac acaatgcagg     120
aaagagacta aagttgaaga atttcttttc atcaggccac ccaagtattg caaaccagaa     180
aaaaatttta atataaactg ttgcaatcct tacatcttta tgcaatttat ttggaaaagt     240
caaataattc cattacaaat atatttgtta aaaaccttat aaatttaact tataaaattcc    300
aaattagtca attatattat ttcagagtct ga                                  332
```

<210> 54
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 54
```
tttgttactt ttacatgatc tttattattt aagaaaaacc tcttttaacc atttatataa      60
cagaaaaaaa atagggaggc tggtagatca tcacatatat agtagctaaa atatgaaagg     120
ccagggaatt tattattaat gaagtcataa aacagactta accaaaagtg tgtgctagga     180
aacaagcagt ttcacttcag agacttcatt gcaggaaccc agtttcctta tgtggaaaaa     240
agtgattata aataacagtt atctgaaagg tggttgagag gattaaatga gatcacctat     300
gcaaacaaat acatgtaggt atgaaagacc atccgtcctg ggggtngtgg aaagtttaag     360
tttccccncc agaacccttc cctttaaggg cctta                               395
```

<210> 55
<211> 271
<212> DNA
<213> Homo sapiens

17

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 55
aatacacttc tttgttatac cacgaccaaa ttttctaatc ctagtacagg ccacaatgaa   60
ataggccaaa catgctacca ttaaagtttg ttgggatgag attgtagtaa gtttactcaa   120
agtattcaag ttctaatttt taaggtgctg tagagaaaca taaaagattt cactgtatcn   180
aaaaatatga ctgttttgat cttaagctat acattttatt tttatctaac tgattaagac   240
ctggcctctt aatgaggcac atttttgggc a   271

<210> 56
<211> 472
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 56
ggtatcttaa cttttattaa tgttggntat cacggttaat taatttaaaa tgggaaaata   60
attcaagttg ttagttgaaa gaattagaca ccagtgtttt ggtatcttaa cttttattaa   120
tgttggttat cacggttaat taatttaaaa ttgtggttta ttaatatttt aagttactct   180
catattatat tttattaatt ttttcttatt taaaaagctt gtctctgcca cttcctgtgt   240
gacctgggca agtcatttta cctctaagag cctcaaattt cctcatctat aaagtggaaa   300
tataaataca aagcttgcag aaatgtcagg aaaataaata aattaaatgc caaatagtca   360
atgagggata ttaggcaaag gccagttttg gtgggcattt taacctatgg agactcagtg   420
cctctgtgtg tcccattatc acctccaaga catcctggca acaccaccgc tg   472

<210> 57
<211> 501
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 57
gactttgttt aacctataac ctttttttcct cccacatagt aggtagtaac atcacacgga   60
aacagtgctc tgaagacatt ctggacacat cgtatacagc acagccattc aaatcaacgg   120
caacagaacg cacgaagaac ctggttttct ttcaaagcat gagcagttct cattttacaa   180
catgtgtttt aacataattc agaaagtgca atctttgcat gacaaccaga taattctcaa   240
aggttactag tgagctgata aaattaacgt ttggcaagga ggtcatggtt tacaggtagg   300
ctgtccgctc accaatgctc agaaaaattc agcagaacat acttttcata tttagatccg   360
aagagaggtg agagacattc tactcaaagt catgggctgg gctttctgtc ctccaaacga   420
aattgggcag gncatttgcg tggtttcctc tgggataaag ttccccttat ttaatcantg   480
gtgcaaaaaa tcctnggcat t   501

18

```
<210>  58
<211>  430
<212>  DNA
<213>  Homo sapiens

<400>  58
ttaaggttct tatccagctc ttttatttca cagatgggaa aataaggcac tgtccaagta      60
acacacagtg acagtggcaa agtcgtgctt gcttcccagg tccctgacct cagacaaggg     120
tgttctctcc cattaaatgc ttttttctcc tcatcttgct ccattttcct atcttgtggc     180
aagagattaa caatctaaat tccaatccta gttctgacac tgaccaatga aataaacatt     240
taggctgggt gtggtggctc acacctgtaa tcccatcaag gcaggaggat cacttgaggc     300
caggagttca acactagtgt gggctacaaa gcaagacccc cgtctctaca gaaaattttg     360
ggtgctgtgt acctatagtc ccagctactc tgtaggcgga agtgggagga tcgtttgagc     420
ccaggagttg                                                           430

<210>  59
<211>  545
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  59
cagttcagca aatgtttatt gggcacctac aataggcaag gcacagtacc agctgctgtg      60
ggttacaaag acaagaaggc taggctcacc ctcgagaggc ttacagtcta atagagagag     120
acacactcac aggtaacaaa aatacaaggc aaaatgaggt gagctctatg gcagaggcaa     180
aaacaacggg agaacagcga gcagagatag atcagacata tctcagcaga tcagatgttg     240
gatgcaggga gtgacgtttc agccaggctc tgggaggtgg gtcggattcg cacaggtgaa     300
ctggaaaaaa gaggacacta aggcacaggc aaggtataga ggtgggaaag tgcaatgaat     360
gttcagagaa cagagatgcc tgccttgacc aatacatagg aggccaacag ataacagag     420
ggacctaagc tggggaagtg gtttcaggcc agatggtgtg atcgctcgta gtaggatttc     480
nttccttcct tccttccttc ctttttttcc aatgaaacaa gccttgatct accccaggc     540
tggag                                                                545

<210>  60
<211>  306
<212>  DNA
<213>  Homo sapiens

<400>  60
aactttactc ataaaatttt atttgaacaa aacaattttt gaaaatataa aaatttcata      60
agaactgctt tcctgttaga tacaaaattt attttaaaaa taaataatta tattgacctt     120
taccatcact tgtctaaatt ttactcatgt ttattgtcga agacacagag gtgaattaga     180
agagtatatc attatacatt gtcaaataaa gcgaaggttt ccttatccaa atagagagaa     240
tatatatgtg attacttaat ataaagcaaa agctatttct accaaagaac agacatgcag     300
ttattg                                                               306

<210>  61
```

19

```
<211>   164
<212>   DNA
<213>   Homo sapiens


<400>   61
gcattatttt aagatcttta ttattaagta actcactggg gttgtcaaag tatgttataa      60
aattacacag ataattagag atatatgtta catagaaatg ctgattttac actctcttct     120
gagtacaagc atttgattac agaggctcat agcacaacaa aatg                      164


<210>   62
<211>   410
<212>   DNA
<213>   Homo sapiens


<400>   62
taatttgtat aatttattag aagcttctta ggaactatat ttaagccaaa tatctacata      60
agttacaaca gaaaaagact gacgccgcaa ataccaaact gccaaataat atacacagat     120
ttgtcaatgc ccataaaaaa tgtgaagggc tggggactgg gagtggtttt tcttttttaca    180
acaaaatgta cagattacta aaaactaggc atttagtcca acttttgaca gcgttttaca     240
gctacaagtt cacattaaac aaactatttc gcggagggcg gtcgcgctga gcctaggcgg     300
ccagagggtg cggggaaggg gcacttcctt tgtgtcagtg acaagtgggt tatgttgaag     360
actctttcct ctccccagct cccggcctcc cttcaaaaaa aaaaaaaaaa               410


<210>   63
<211>   270
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   63
cacggctcct gttttattgc cttcgggtgt ccggagcacc tgactgcccc ggggtctaat      60
aatttaaggt gccgagaaca ggtcaggaca aggggtcgca aaanaggggc tggggggcagn    120
tggttacaaa atataccccc accccacaac aaacaggcta gaggagacca gcctggctgt     180
gtcgggangg ggcgggcaga gggcgcccga ccagccttca gagagacaga gccacggcca     240
gcgccccaga gggagtggcg gagacaggac                                      270


<210>   64
<211>   322
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   64
tttttttttt tttttttttt tttttttggg tggggagtac ggantttatt ttattgttct      60
gcgtctgggt ttggttcctt ggacgtcacg gttcctggat gggggtgggt gggtcccact     120
```

20

```
ccctaagtca tggtcccacg ggcctnttgg dattttttc caggttcaaa gtgcactgag      180
aaagcttcac agttttaata cttcctagat gctcaactga ggcaaagtga caaaatggcc      240
ctcccacccc cgcccgccac aaaantaaaa tcccaagccc ctggnagctg ctgctcagcc      300
cttatgaaaa aataatacaa ac                                              322
```

<210>   65
<211>   330
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   65
```
accacgggac nttttttaag tttattctag ggtgagtggg tgcccaaggg gggcagttga      60
gtatggccga ggtcacctgg tggcagggtg ctcagggatg gccacaggtt ctatagggcc      120
ctgcagctgn aantctctag tcagttggga tgcttcacct tctgccccac cccaaggggt      180
ttgggcaatn catggatgta gtagttttcg taattcgcag ggatcagtga tgggcactga      240
gcaggcttga ttctcacaca catatgcagt ggcctgggtc ttccaaccgt cggagggtac      300
tcaggaaagg cancttgccg gacaagaagc                                      330
```

<210>   66
<211>   424
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   66
```
tttttttttt gcagtttaaa acttatacat tgtttatttc tggtaatttt ctgtttaata      60
ttttgggacc tcagttgacc atgagtaaca caaaccacag aatgcgaaac agtggataag      120
agagggacta ctgtacatac tttcgcctaa gacagttctg tatattcttc tgttaacggg      180
gtagcaaaag catatagaaa ggttttgggg ggatgcagtg cattgctctt ctgtaatgac      240
agtaatttac ttcaagacat tgcaggagaa ggggttaaag gagtaaaggg gaggaagaga      300
aggattcatt tcatgcctac ctgtacagag acactttctt gctttctact tttttttttt      360
tttttttttt tgagncggat tctcactctg tgcccgggct gggagtgcag tggccanttc      420
tcgt                                                                  424
```

<210>   67
<211>   356
<212>   DNA
<213>   Homo sapiens

<400>   67
```
tttttttttt tttttttag ctcagccagt tagttgtttt attttgagtt ttgtttttt       60
aaaaaaagaa aagctttgag aaaatgtatt aaatatcagt aaagggcagg aacacacatg      120
gctagcttta caatagcaat ctaaacatac acaaaggcaa acattgagta aaatgctagg      180
gaaagacggc actttggggg cctactgcag ttttccttat tgcacataaa ggttgtggat      240
```

21

```
aacgccaagt ctttaatttt tcacagttat actttaatgt cattttatat aacgtttatt      300
tatataacat actataatgt taattttata aaaccaccag tttgctactg ttgaat         356

<210>   68
<211>   285
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   68
gtttttcaac gttttatttc aagcattaaa aaaaaagaaa aaatcaatta ccttcaatag      60
aacagaaaat ctgaaaaatt aaataaggct aggcatggta gcagatggaa aggatttact     120
atcctgtatg attttaatga caatgnccct gccaaataat atcacccccgt gggttaaggg    180
ggtacacagg aaggcagaag ttgaaattag tttgaaggct acattgtttt tttcccaatt     240
tacattgctt aaggatcagc aacgggaagg aacatcaatg ccccc                     285

<210>   69
<211>   257
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   69
attttaaagt tttattatga aaacacatgg aattaacggt gttatccatg tatttgcaac      60
agcagagaaa gagtgagagt ggaccatccc catagggac acttatcctt tggctaaact      120
aatataaata atggaaataa cacctaatac aataatacag cacataaaag agattacatt     180
aagagangag acaggaactg cggagaggag tcctgagtat ggnggagatg cggctcatgg     240
agaagcatcc aggctca                                                    257

<210>   70
<211>   129
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   70
ttnacagtta acatttatta aaacatgtca tacaaaaggg catgatctct tctataagaa      60
gaaaatatta aacattaaca ttcaattaag taaaaccatg ctgtacactg aagacagcaa     120
tatataaag                                                             129

<210>   71
```

22

<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 71
```
tataacttaa aatcgtttat tttaaaggaa actttaaata accaatggaa atgaaaaacc      60
agccccactt gccatgaaca gccccaactg ttcggatttc attcgggcag gcggggtcca     120
caagaggctc tcttggctta aagggagccc agcttggnca ngatcaggtg ttaaggacac     180
gtgagcacca aattgagcct ttctcagtga tgaggtcaaa aaatgaaagc gcgcaggaag     240
ggttctcccc aggggaattc tggggtgtcc caangtcatc cggggccccg cacgcttcgg     300
gccatgctgt tctggtctcc agccctcatg gccgtggcaa ttggacagcg tcaacttcct     360
cactcagtgt gttcgcatcc tgaccttgag gtnggggtga gggggacatt ga             412
```

<210> 72
<211> 211
<212> DNA
<213> Homo sapiens

<400> 72
```
tttgtcaaga gccaagacac aggtaatgca cgacattgat tgctgcattt taccttcaaa      60
atatttgtcc ttattgactg ggtctcctta attaatgtac acatgtcatt agaatgcaga     120
cggaggggac tcaccatgaa tatctggggt tgattcccag atgtgtgttg cttctctatt     180
gcaagcagat tcccttgtcc ggatttactt c                                    211
```

<210> 73
<211> 247
<212> DNA
<213> Homo sapiens

<400> 73
```
cctggttcgt aaaactcatt tattcaacaa agcagtacaa gcctcccctt caatcaggac      60
ctgcctgcag ggtcgggcta cttcagtgtc ttcagccaat gggagctaga gggtttaata     120
ctttagtcca cttcccttca tctctggccc catcgacaac atggggaagg ggagtgaggg     180
cctggtagaa gggtactaag gcccttatt tcgttcgctg gtagaactgg aagactgctt      240
tctcctg                                                              247
```

<210> 74
<211> 414
<212> DNA
<213> Homo sapiens

<400> 74
```
aaatataagt aacagtttat taattttttt ttttacagtg agatatggct atgggaagca      60
ggtgatacta tttgtttaag aaactgggat gccaactaac acgtggagtt ccccaagact     120
ttgcaatctc catttgtgag tttctgtaaa aaagggaacc cagctagagg attcacagag     180
accttgaatg acaagcgaca tactcgaaat ctgcagctct cctcccggag cccagcgtgc     240
caggagacac gctgcagtaa ggcacttacc aagctccttt ggatagaggg aaagaagaaa     300
```

```
tcaatccagg caacatgcaa gtttcagtga agtcagacat tttatgggaa tttaaagtct    360
tgcctgttct cagtgcaccc cagtcagtta ctgacatgtc agcctcagaa accg          414

<210>  75
<211>  395
<212>  DNA
<213>  Homo sapiens

<400>  75
aatgtacacc agaagtcaat atttaataac agtaagaatt tttttttgtta cccttaagtg    60
taagttccct tccctctaca taacttaagt taattttgga gctaagcgaa cttggtcacc    120
cactaataag gggcaagcca ggaccctacg gagcacagag ccaagctctc aacaacacct    180
ggtaactctg tgctattcct agaatcactg ctgggtgccc cgcaccatga ccagggaatg    240
ggacatccac agtcctcaac attcttccaa atcccagggc agcagggaag ccatcccaat    300
cccaaccttt tccatctgct tctccaggga gtccaggggg taggcccggg acagcagctg    360
cttcaggcgg cccagctccc gctccttctc ctcac                               395

<210>  76
<211>  470
<212>  DNA
<213>  Homo sapiens

<400>  76
tggaaatcag aggtgaatat ttatttaatt catatataaa ttttacataa tattcatggt    60
gctataaata taggcacatt ttttaaaagt ccagatacat ccaaaaatta ccccctcact    120
gtagcctact ccaatcccct caagacggaa tatctaacag tgtttggaaa acagggtcca    180
gaaaggccct gcccattaat tttaaaactt tctgaccatc aagaccattc tttcctgctt    240
caaccaagca gagtcaacaa ggatcatgtg ttttcagggt tttaattgca ctagttgatg    300
aattaagtaa atgcctctgc ctgggtagtt tgtaataggt ttatgggttt ggtttctcct    360
acttagttca agtcagagaa agaaaaacca atatctatat tcctattggc cttctttaaa    420
tccctatgag atggcttaaa aggatgtcac tgcaccagag gactcacttg               470

<210>  77
<211>  553
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  77
agaactgnan nttttattca nacatttnct ttgattnaaa tacattacgt acanngtcta    60
cattggatta gaagaatgac acagggggca gcaacactct cgcatcccag cctccantcc    120
ctgacnctgn gangcagggc cgatcggtgg gnannggnnn ngtngttcca tgagttcgnn    180
tcagaancct agncccggca ttctgggccc ctggctcttc cagagtccac attcaaggca    240
acctgagcac aggcttgagg gagagtggag aaaggccagg aaaggatgcc cacactcttg    300
cctgccaggc ccaggaccag ctctctccta cactnggacc caatttcctt ctggatcaca    360
gagctggtct ggatcaagac aatgtggaga tctggtgtgg aggctgtggc aggtgangca    420
gccgggctcc ctggttagac ccccaggctc tctttagcac nagatgggca ctttaccaac    480
aggtttgggt aaaaatgtct acngagagct atgcacaacc tgggtnccct ctgggctcc    540
```

24

```
taaaagtcaa ggg                                                       553
```

<210> 78
<211> 476
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 78
```
agtatttca taatttatat tgcttaaaat tatgatttgc atgctaagat gcaaacttac       60
gtgatatctt ctttagacat aatgctatta agagcacatg ctttataaaa taaaactggt     120
ctcattcata tcaggtgcag aaagccagtc ctgaaagcat agactatccc ttattctggc     180
tgttattaag gaaaaaattc atttaaaaaa tacagtaaag attgaaacca agtttactgt     240
ttcttgaaca gaataggaag aaaatatttt aaatggctga gctggtcatt agactattac     300
tcatttatct taaaggcaga aacttgtcaa cccaactacg tgaaacagag aagcatgatt     360
tgcttaagca ggcgacatta gagttaggcc tctccacngg gagcttcccc gaccgtcagc     420
acgtggcaga cagggatgcg gcccatcatt ccgcagggaa gaaccggccg ggccgg        476
```

<210> 79
<211> 562
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 79
```
tagaagaaaa gagaagttac tttattacaa tttgttatct catcccgagg tcagggcccc       60
ttgcttagtg ggaaaaaaaa ccctttagga ctgagtctcg gaacagcacc tgtcctaaac     120
ccaacttctc tgtgatgccc ggatttcttg attttgatcc agtagctgct cattttcctg     180
cctttacat ttaggagatt caagctctgt catttcctct agctgcccct gaagtccgtc      240
cttcctgcag ggcccaactc cacgtagagt gagtgcagcc acacagcagt aaccagatag     300
agcagcctcc cctgcagaca tgagcaaaga agggatccag agagccaagg ctgtatcata     360
gattcttgtg gggtcaaagg ggcagtcagt atgtcccggc ccctcatcca gtggtaccag     420
aggatccagc agtcctgggg tggcagtcag caataaggcg gcggccaccg ttgggccaca     480
gtgagtgaca cagcaagaag gaggcccagg gagcaggcna cggacaagag caggntcacc     540
agagctagtg ccagcaggac cc                                             562
```

<210> 80
<211> 580
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

25

<400> 80
```
tttttaaat aaatttttta ttacaatgac aggaagactc tggatacaaa cacatttgct      60
aatataatca ctccactggt tacctaggcc tagacgtaca aaaggacacc catatctcat     120
caggagaaag acaatttttga gtttctgggt gtagtaccaa gtggttatga tcaccacgta    180
cgtggtctat ccagttaact gtgtggcaat ttgctatttc aagtcctctc ataacagaaa     240
ttactgaaat atgtggaaca ccagtcaata taaagaattc atttttaaac agactagtga     300
atttgtgtca taaacacact tgcgtatgga tattaggaga gcattgcttg aatatctcta     360
aaactatttt taggaattaa aagctttcat agttaatggt atgatattgg ccttcagaat     420
tcatattgat aaaagcaaac cttagtcatt taacaggaat gtttaaattt tagagattct     480
aacatgcgat gccgaaaaat cctaacattt ccacttagta atgtcagggt tgtgccagtt     540
ctaatttccc atagctagta acatcagaaa atatntatca                           580
```

<210>   81
<211>   268
<212>   DNA
<213>   Homo sapiens

<220>

<221>   misc_feature
<223>   n=a,t,g or c

<400>   81
```
catctaatgg ctggttattt ttacagatgc caagtttaca aaacatacaa gtgcacagac      60
aggtgtggga ggtagctcga aatatacaga gtgttcgcaa cactagagac gtcttctggc     120
cgccatcagg ggactcggag gtagggtagg cttggtgagg cccgtgnttc gtgtccgtgg     180
cacagcctcc tgcaaagggg ctgccctgct cccctgttca catggtgcca ggccgtgctc     240
cccaggtgcc tccggggggtg ctgaagaa                                        268
```

<210>   82
<211>   567
<212>   DNA
<213>   Homo sapiens

<400>   82
```
tgtatgttga gagtctcttt aattttttaga gtaaatatga cacaatggat agctttagaa     60
caagctaaca ttactacagt tcaagcatgt gcaactggta cagttcagta gtacataaac     120
gactcaaaca aatgtacgac aggtcagaaa cttaagttac aaaatagagt caatattaca     180
attaacacag agaagtaaaa accattgctc tcagattctg cacacttaaa aaaacataaa     240
ctttatacag tcattgaaat tacgcatttc tactcagatt attagagcat attacaaaca     300
cacagaagcc taaacagtta tggtcacatt ttggtttttgt tccagtggtg cacgatcaca     360
tgaaatgtta catccgtttt gtgtgaaata aacatttggc tgaagtgcaa tagctgctgc     420
attaaaaata tttccataaa aatgcttaga ttaaaatctt cctgaacatt agggttctaa     480
tgttcaggat tattttaaga gtccttatga agagtcctta aaattataga aatagatgta     540
gttaggaatt tcagtgtgtt tgctgtt                                          567
```

<210>   83
<211>   433
<212>   DNA
<213>   Homo sapiens

<400> 83

```
tcttactagt gctgatttat tacaaaggat attttaaagg acacaaatga tgaagccagt      60
tgaagagata cacagggtga ggtttggaag ggtccttgtg gagttggggt gcaccactct     120
cctggaacat ggatgtgttc gccaacccgg aagctctcca agtcctgtct ttcaaggagt     180
tttctggagg ctttatcacg taggcatgat tgagctccag ctctactccc cacgccagag     240
gatggggaat ggggctgaca gcacaacgct tccaaccata ggtctttttg gtgaccagtc     300
cccaaataag gagcccacca agagtcacct catgagaaca aaggacgctt ctatcaccca     360
gaaaattcca agggatttag gagctctgtg tcaggaacca ggtttaagga ccaaatgtta     420
gaacaaaaga tgt                                                        433
```

<210> 84
<211> 394
<212> DNA
<213> Homo sapiens

<400> 84

```
cggagagaca aaacaagaac tagagtttta atgataataa aagcaataat aataaaagca      60
ataacaataa aaacaagatc agactctcac tggggtaggc aagggactga ggaggtgaaa     120
caacccgtat ggtgtcccag cacggcacct gctaaggagg gagggtggga aagcccaggc     180
cttcgttgcg ggtacaggag gatgcaggag agggctgagg tggggagga acaactggtg      240
tactgggaga gagatttggg acgaggggga accatcagca aaaaatgaag ccaggaatca     300
cagtaagggc gcaagggctg aggccagttg tttccataaa gaagactcaa tcattacaaa     360
aataattttt agtagttaaa aaacacacat aggg                                 394
```

<210> 85
<211> 527
<212> DNA
<213> Homo sapiens

<400> 85

```
tttttgtagg gatggggttt cactgtgttg cccaggctgg tcttgaactc ctggacacaa      60
gcaattctcc tactttggcc ttccgaggtg ctgggattac aggtgtgagc accatgctcg     120
acctaaatgt tcacttttaa tcagggccta tagccttgaa ttctatagta atgtggttca     180
ctaagtcctc cctaatagat attttcacac tttctaaatg gaggtaggac tgagggactg     240
tactaaatag cagacaagca agaagagcag ccttccccta ccaatacctc cagcaacagt     300
ccctagtaac aacagtagta acaggttttt gttttgttgt tgtttttaa gagaggcagc      360
agtgtgttca taatcctaat gaagaaaaat ggattgggtt gcaggaact gaggcatgag      420
acaaagcaag aggcagggat taaagaaatc cacagggctt ctgcttttaa tccaacaaaa     480
tcacaggaaa attactcaat tatgaatttg gagtcaggga tctctgc                   527
```

<210> 86
<211> 139
<212> DNA
<213> Homo sapiens

<400> 86

```
tttgtgttat ctctctttat tgttctgcag cctctttaaa aactttgcca tgagatcatt      60
tccacaataa aatacatttc ttccataaag ccatgtgttt atttagtcaa ctattgtttg     120
tgaggacagc tttgctgta                                                  139
```

<210> 87
<211> 384
<212> DNA
<213> Homo sapiens

<400> 87
tttttttttt tttttttacat taaaatgtaa tttatttgca gaagaattgt ctccagccct   60
gtgcgcttgt gggattggga aaacatcgtt tttaaacaca aaggatcaag aagtactcct   120
tggagcagca ttaataggca ccaatactac gaactagaat ttagagcctt gccactggcc   180
agcgctgggg tcagtcggga gcatgccagc aaggctgacc ctcagtttca ctgaggccgg   240
agtcataagc agcactttaa agatccctgg gtaatttgga tgcattttga gatgtgagcc   300
gcatagattt aaggtacttt agcattctgc agctttcact tattgattgt atgattccca   360
ccgtctgacc ccagcagtct tcac   384

<210> 88
<211> 403
<212> DNA
<213> Homo sapiens

<400> 88
cgttaaaagg caagtacata tattttatgt gttcaagtac atatatttat gtatatttat   60
gtatgtatct gtgtatgtat ccacatgcag aaagataata taccctgata caaaatatac   120
atgttaagtc taagaagtcc tgttactcaa agaaatattt tcaaatatta ttagataatt   180
cacttgtcga tcatcctttt tcagcatcta aagaaatttc agacacaaaa tatgcaactg   240
catttagaat aaacagatgg aaaagctatt gtagaaaaaa atataggttt ttagaaaagt   300
tggaaagatt acaggcaaaa aataagaaca tatattaaat tacatttgca agtttcaaat   360
atttgtaact caacacaaaa acctctaaaa gtatgttggg tgc   403

<210> 89
<211> 283
<212> DNA
<213> Homo sapiens

<400> 89
cagctggagc gtatgacttt attgatccag gacatgtatt tgcagatctg ggtgtagaca   60
gctggatgct gggcagagca caggggtaaa cacccacga gaggatgcct tggagggtct   120
cgtcacagac caggggcct ccagagtcac tctggcaagg gtcctggccc cggtccagtc   180
cagcacatat catgttgttg gtgaccacgc cagggtagaa gacctcacac tctttagggc   240
tcaggatagt gatgctggag caggtcaggc ccttgtggaa ctt   283

<210> 90
<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 90
aagacctta ataatgccca cgtgccctaa ggttggccct cttaactccc tcagctcttt   60

```
ctggctttaa gcatcacccc aggtgtgcag tttatgtcag aggggggccat caggtaggga    120
aacttatcag ctgctctaag agaaaaggcc gtccctgcta ttatcagtgg gcacaggctg    180
gagctcagcc agcagggggct acagtcgggt tacctggaga catgatcccc tggtcctctg    240
agggcctagg caggacatgg gggaggacac ggtnccccgg gacagagtct ctggccaggg    300
agcagccttt caggttgctc ttgtgtgcta gaaaaaaata ttttctctat gtgccatgtc    360
atgganaaag ncaaaagcac tgagttaatg gggatcttgg aagctttttag ccacaggttc    420
ttctgcctgt gaagagagct tttttgcatg ttgaacanct ggnagcagga ggttgaattg    480
gcagtcttttt tccagnggcc acancttcan ccagtcacnt ttcc                     524
```

<210> 91
<211> 488
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 91
```
gcgaccgcag tngcaactcc agctggggcc gtgcggacga agattctgcc agcagttcgg     60
tccgactgcg acggcggcgg cgacagtcna gggtgcagcg cgggccctng gggtcttgca    120
aggctgagct gacgccgcag aggtcgtgtc acgtcccacg accttgacgc cgtcgggggac   180
agccggaaca nagcccggtg aaggcgggag gctcgaagat cccctcggga agggcggccc    240
gagagatacg caggtgcagg tggccgccgg atcccagccg cacttctggc gtgagtatcc    300
ggactgcagg ggccgggacg aggtcggtgt tcgaatcttc ccagctctgg ttggcccgca    360
acctgggtta agcaggtcct cgtagcgttt ccgcaactct ccggaatctg gagtcttccg    420
gtgtgcaact ctgaatggtc ccgggaaact tgcgcggctc gcatcggnta aagacagggt    480
gcccccat                                                              488
```

<210> 92
<211> 415
<212> DNA
<213> Homo sapiens

<400> 92
```
aaatatgctc tgaattttat ttacagaagt ataccttaca taattattag aggctataaa     60
tagcttaaaa taagtttcct tgactctgaa aaacaaaata aggatcagca acatttttaag   120
caaaaaggtt aaaaagtcca ttttgttaac tcttgtttttg cttgatattc atgaatattt    180
tagctcttca tgagtcctgt acattttttcc tttattccaa tgtcataatc tccaaagtta    240
tcagaaactt gcatttgaga gcatgtgtca aagtcctata gctgattata aaccatcctt    300
taaagaggat taaaacaaga ccgatttttg aatggtgaaa tgtccaaggt agttagtcaa    360
gaacatgact gacaaatttt attaatttct gtgttttaca ataacttaac ataat          415
```

<210> 93
<211> 546
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

29

<223> n=a,t,g or c

<400> 93

```
anntattttt gcaaaagaag aaaagttttt ttganctcct tgaatgtagc acacaaaaaa      60
agtgatggtt cccccaggct ccatcagcaa tagtaaaggg caggaacgta gagatttctt     120
tttccaggcc caggcctgtg aaaaacgatg gctaagtntt agtccttagc agggccgacg     180
gatggtctcc attcctggnt aaccctctgg aatctgggag catgagtatc tccaagantt     240
catttctatt cagtaaagat ggggagggga ntcccactgt tacttgttga actggaaaga     300
ttagacccca tgctctgagg gtgcgtccac tgccacttgg ttctgttggg ccgctgctct     360
cctcgactga aacactggga agaagggcac aggggtttta ctgggagatg taagctcctt     420
ngcatagctt gcagcccttc ggcatataac gtgcccgtng ctgctgaggg gagagatggg     480
cccagtttgc tgggtaaggg gtcccatcat gggagggcag gctnggaaag aaatggggtn     540
ggccca                                                               546
```

<210> 94
<211> 1201
<212> DNA
<213> Homo sapiens

<400> 94

```
agtcccagct cagagccgca acctgcacag ccatgcccgg gcaagaactc aggacgctga      60
atggctctca gatgctcctg gtgttgctgg tgctctcgtg gctgccgcat gggggcgccc     120
tgtctctggc cgaggcgagc cgcgcaagtt tcccgggacc ctcagagttg cacaccgaag     180
actccagatt ccgagagttg cggaaacgct acgaggacct gctaaccagg ctgcgggcca     240
accagagctg ggaagattcg aacaccgacc tcgtcccggc ccctgcagtc cggatactca     300
cgccagaagt gcggctggga tccggcggcc acctgcacct gcgtatctct cgggccgccc     360
ttcccgaggg gctccccgag gcctcccgcc ttcaccgggc tctgttccgg ctgtccccga     420
cggcgtcaag gtcgtgggac gtgacgacga ctctgcggcg tcagctcagc cttgcaagac     480
cccaggcgcc cgcgctgcac ctgcgactgt cgccgccgcc gtcgcagtcg gaccaactgc     540
tggcagaatc ttcgtccgca cggccccagc tggagttgca cttgcggccg caagccgcca     600
gggggcgccg cagagcgcgt gcgcgcaacg gggaccactg tccgctcggg cccgggcgtt     660
gctgccgtct gcacacggtc cgcgcgtcgc tggaagacct gggctgggcc gattgggtgc     720
tgtcgccacg ggaggtgcaa gtgaccatgt gcatcggcgc gtgcccgagc cagttccggg     780
cggcaaacat gcacgcgcag atcaagacga gcctgcaccg cctgaagccc gacacggtgc     840
cagcgccctg ctgcgtgccc gccagctaca atcccatggt gctcattcaa aagaccgaca     900
ccggggtgtc gctccagacc tatgatgact tgttagccaa agactgccac tgcatatgag     960
cagtcctggt ccttccactg tgcacctgcg cgggggaggc gacctcagtt gtcctgccct    1020
gtggaatggg ctcaaggttc ctgagacacc cgattcctgc ccaaacagct gtatttatat    1080
aagtctgtta tttattatta atttattggg gtgaccttct tggggactcg ggggctggtc    1140
tgatggaact gtgtatttat ttaaaactct ggtgataaaa ataaagctgt ctgaactgtt    1200
c                                                                    1201
```

<210> 95
<211> 760
<212> DNA
<213> Homo sapiens

<400> 95

```
agagccggcg ccgtcaccgc ccgcattgcc gctcccagtc ccgcgctcgg cacgacatga      60
aatcccccga cgaggtgcta cgcgagggcg agttggagaa gcgcagcgac agcctcttcc     120
```

30

```
agctatggaa gaagaagcgc ggggtgctca cctccgaccg cctgagcctg ttccccgcca      180
gcccccgcgc gcgccccaag gagctgcgct tccactccat cctcaaggtg gactgcgtgg      240
agcgcacggg caagtacgtg tacttcacca tcgtcaccac cgaccacaag gagatcgact      300
tccgctgcgc gggcgagagc tgctggaacg cggccatcgc gctggcgctc atcgatttcc      360
agaaccgccg cgccctgcag gactttcgca gccgccagga acgcaccgca cccgccgcac      420
ccgccgagga cgccgtggct gccgcggcc ccgcaccctc cgagccctcg agccctcca      480
ggccatcccc gcagcccaaa ccccgcacgc catgagcccg ccgcgggcca tacgctggac      540
gagtcggacc gaggctagga cgtggccggc gctctccagc cctgcagcag aagaacttcc      600
cgtgcgcgcg gatcctcgct ccgttgcacg ggcgccttaa gttattggac tatctaatat      660
ctatgtattt atttcgctgg ttctttgtag tcacatattt tatagtctta atatcttgtt      720
tttgcatcac tgtgcccatt gcaaataaat cacttggcca                           760
```

<210> 96
<211> 1866
<212> DNA
<213> Homo sapiens

<400> 96
```
gaaaagacaa ttcttttaat cagagttagt aatgtggaca gtacaaaatc gagagagtct       60
ggggcttctc tctttccctg tgatgattac catggtctgt tgtgcacaca gcaccaatga      120
acccagcaac atgccatacg tgaaagagac agtggacaga ttgctcaaag gatatgacat      180
tcgcttgcgg ccggacttcg gagggccccc cgtcgacgtt gggatgcgga tcgatgtcgc      240
cagcatagac atggtctccg aagtgaatat ggattataca ctcaccatgt atttccagca      300
gtcttggaaa gacaaaaggc tttcttattc tggaatccca ctgaacctca ccctagacaa      360
tagggtagct gaccaactct gggtaccaga cacctacttt ctgaatgaca gaaatcatt       420
tgtgcatggg gtcacagtga aaaatcgaat gattcgactg catcctgatg aacagttct      480
ctatggactc cgaatcacaa ccacagctgc atgtatgatg gatcttcgaa gatatccact      540
ggatgagcag aactgcaccc tggagatcga aagttatggc tataccactg atgacattga      600
attttactgg aatggaggag aaggggcagt cactggtgtt aataaaatcg aacttcctca      660
attttcaatt gttgactaca agatggtgtc taagaaggtg gagttcacaa caggagcgta      720
tccacgactg tcactaagtt ttcgtctaaa gagaaacatt ggttacttca ttttgcaaac      780
ctacatgcct tctacactga ttacaattct gtcctgggtg tcttttttgga tcaactatga      840
tgcatctgca gccagagtcg cactaggaat cacgacggtg cttacaatga caaccatcag      900
cacccacctc agggagaccc tgccaaagat cccttatgtc aaagcgattg atatttatct      960
gatgggttgc tttgtgtttg tgttcctggc tctgctggag tatgcctttg taaattacat     1020
cttctttggg aaaggccctc agaaaaaggg agctagcaaa caagaccaga gtgccaatga     1080
gaagaataaa ctggagatga ataaagtcca ggtcgacgcc cacggtaaca ttctcctcag     1140
caccctggaa atccggaatg agacgagtgg ctcggaagtg ctcacgagcg tgagcgaccc     1200
caaggccacc atgtactcct atgacagcgc cagcatccag taccgcaagc ccctgagcag     1260
ccgcgaggcc tacgggcgcg ccctggaccg gcacggggta cccagcaagg ggcgcatccg     1320
caggcgtgcc tcccagctca aagtcaagat ccccgacttg actgatgtga attccataga     1380
caagtggtcc cgaatgtttt tccccatcac cttttctctt tttaatgtcg tctattggct     1440
ttactatgta cactgaggtc tgttctaatg gttccattta gactactttc ctcttctatt     1500
gtttttaac cttacaggtc cccaacagcg atactgctgt ttctcgaggt aagagattca     1560
gccatccaat tggttttagg tcttgcatat cagtttatt actgcaccat gtttacttca     1620
aaaagacaaa acaaaaaaaa aattattttt ccagtctacc gtggtccagg ttatcagctc     1680
tttaagagct ctattaattg ccatgtttac aaacaaacac aaagagagaa gttagacagg     1740
tagatcttta gcagtctttt ctagtttccc tggatttcac tgatttattt tttagggaaa     1800
atgaaagag gaccttgctg tccgcctgca ctgcttcctg gtaaactata acaaacttat     1860
```

gctgcc   1866

<210> 97
<211> 1488
<212> DNA
<213> Homo sapiens

<400> 97
cgcgacggct gagcaaggac tctccagtcc tcagtcacct tggacaaaga agtgtggatc   60
ctcagattcc atcttttcca actccaaggt gccatggcag agaaggtgct ggtaacaggt   120
ggggctggct acattggcag ccacacggtg ctggagctgc tggaggctgg ctacttgcct   180
gtggtcatcg ataacttcca taatgccttc cgtggagggg gctccctgcc tgagagcctg   240
cggcgggtcc aggagctgac aggccgctct gtggagtttg aggagatgga cattttggac   300
cagggagccc tacagcgtct cttcaaaaag tacagcttta tggcggtcat ccactttgcg   360
gggctcaagg ccgtgggcga gtcggtgcag aagcctctgg attattacag agttaacctg   420
accgggacca tccagcttct ggagatcatg aaggcccacg gggtgaagaa cctggtgttc   480
agcagctcag ccactgtgta cgggaacccc cagtacctgc cccttgatga ggcccacccc   540
acgggtggtt gtaccaaccc ttacggcaag tccaagttct tcatcgagga aatgatccgg   600
gacctgtgcc aggcagacaa gacttggaac gtagtgctgc tgcgctattt caaccccaca   660
ggtgcccatg cctctggctg cattggtgag gatccccagg gcatacccaa caacctcatg   720
ccttatgtct cccaggtggc gatcgggcga cgggaggccc tgaatgtctt tggcaatgac   780
tatgacacag aggatggcac aggtgtccgg gattacatcc atgtcgtgga tctggccaag   840
ggccacattg cagccttaag gaagctgaaa gaacagtgtg gctgccggat ctacaacctg   900
ggcacgggca caggctattc agtgctgcag atggtccagg ctatggagaa ggcctctggg   960
aagaagatcc cgtacaaggt ggtggcacgg cgggaaggtg atgtggcagc ctgttacgcc   1020
aaccccagcc tggcccaaga ggagctgggg tggacagcag ccttagggct ggacaggatg   1080
tgtgaggatc tctggcgctg gcagaagcag aatccttcag gctttggcac gcaagcctga   1140
ggaccctccc ctaccaagga ccaggaaaag cagcagctgc ctgctctcca gcctctggag   1200
gaactcaggg ccctggagct gctggggcca agccaagggc ctcccctacc tcaaacccca   1260
gctgggcccg cttagcccac caggcatgag gccaaggctc cactgaccag gaggccgagg   1320
tctctaactc ttatcttcca cagggtccaa gagttcatca ggaccccaa gagtgagtga   1380
gggggcaagg ctctggcaca aaacctcctc ctcccaggca ctcatttata ttgctctgaa   1440
agagctttcc aaagtattta aaaataaaaa caagtttct tacactgg   1488

<210> 98
<211> 10476
<212> DNA
<213> Homo sapiens

<400> 98
ggatcctccc tcctcggcct cccaaagtgc caggattaca ggagtgagcc accacaccca   60
gccccatctc ttttcatcat ggtactaatt cctgcccgtc cacccacaaa agcactgtag   120
tcgttcccga gtatagaggc ctgtgagcct ccactaggga gagggctcct gcagagatca   180
gataaattga tcacaatggc tggggtggtg caatgtgct aatgctctct ttcttccact   240
caagatatcc tctgtctccc tcagcctgtg agcttttct ccagtgtgct ctgccagtgg   300
gggccctgcc tgagagcccc tgcagctgca gaggacagtt tctttctgct gaaccatcgc   360
agctatgccc cagcccctac cctggagggg tccccagggg ccatgggcag cacctcctgt   420
atagggctgt ctgggagcca ctccagggcc acagaaatct tgtctctgac tcaggtatt   480
ttgttttctg ttttgtgtaa atgctcttct gactaatgca aaccatgtgt ccatagaacc   540

```
agaagatttt tccagggggaa aaggtaagga ggtggtgaga gtgtcctggg tctgcccttc    600
cagggcttgc cctgggttaa gagccaggca ggaagctctc aagagcattg ctcaagagta    660
gagggggcct gggaggccca gggaggggat gggaggggaa cacccaggct gcccccaacc    720
agatgccctc caccctcctc aacctccctc ccacggcctg gagaggtggg accaggtatg    780
gaggcttgag agcccctggt tggaggaagc cacaagtcca ggaacatggg agtctgggca    840
gggggcaaag gaggcaggaa caggccatca gccaggacag gtggtaaggc aggcaggagt    900
gttcctgctg ggaaaaggtg ggatcaagca cctggagggc tcttcagagc aaagacaaac    960
actgaggtcg ctgccactcc tacagagccc ccacgccccg cccagctata aggggccatg   1020
ccccaagcag ggtacccagg ctgcagaggt gccatggctg agtcacacct gctgcagtgg   1080
ctgctgctgc tgctgcccac gctctgtggc ccaggcactg gtgagtctcc cccagcctcc   1140
cctctcctag gcagctccac cactcactga gcactgcttt gtgctaggca ttaacccaag   1200
tctgtcctca tttttaaagac aaggcagctg gggttcagag agggttcaga gcttatccaa   1260
ggtcacacag ctggcgggtc caggagcagg tggaacccag agctgtctga cgtccacatg   1320
tttaatggcc tcacactccc agcaaaactg ggtctagagg gtgggtgaaa tcatgatgcc   1380
aggtgtgtag cctggatcct gattaaggtt gctctggccc caaaccacag ctgcctggac   1440
cacctcatcc ttggcctgtg cccagggccc tgagttctgg tgccaaagcc tggagcaagc   1500
attgcagtgc agagccctag ggcattgcct acaggaagtc tggggacatg tgggagccgt   1560
gagtaccacc aaggatgcat ggcaactggg ggtctgaaat gaagggtgct gggtgggctc   1620
tggatgggca ggaggagagt ggagccccca tagggggatgg atgagatgaa atgggatgag   1680
atgaaatgag ataggataaa atggaatggg atggatgcga tgggatacga tgacatagaa   1740
tagatggagt cggatgaatg ggatgggatg ggatggatgg gaggggaagg gataggatag   1800
gatgacatag aataaagatg gatgggatgg gatgggatgg gatgggatga cacagaataa   1860
agatggatgg gattgggatgg atgaatagaa gagatggatg ggataaattg atatggatga   1920
gatgggacaa gttgggctgg ggggcagctg catgtgcctt ggagtgctct gttggcctct   1980
tcctaagaga acctccccat tggagctggg agcctcccccc actcatgtgt cctccacctt   2040
ggggcccctc cctccccagg atgacctatg ccaagagtgt gaggacatcg tccacatcct   2100
taacaagatg gccaaggagg ccattttcca ggtaatgatg cccagatcct ggatgaaggt   2160
tggggcccaa gagatgaggg acagagcagg gaagagctga gccccctaaa ggggccattt   2220
ccaggctgag gaggaggcct gggtgcctgg gaagtcccag ctcctcctgg ctgggagcag   2280
gtcatggccc tgagctcaat agcacagcca gagatggtct tccctgaggg gaagggcccc   2340
tacatgtgcc caactactta actccttggc actcgtgaac tccagcaccc tgggggatta   2400
ggggtcagtc tgccctggtg gggccttgtg tccagggact tgggcggggt agacctcaga   2460
gaggcccagc tgacggcccc ctctggcctc ccaggacacg atgaggaagt tcctggagca   2520
ggagtgcaac gtcctcccct tgaagctgct catgccccag tgcaaccaag tgcttgacga   2580
ctacttcccc ctggtcatcg actacttcca gaaccagatt gtgagggctg caagctcacc   2640
tcctgcctgc ctccccacgc aggcccctgt gcccacccat ggggggagcca cacacacagc   2700
accccagcca gccagacaca cacacacaca cacacacaca cagcacccaa gccggccaga   2760
cacaaacaca cagcacccca gccagccgga cacacacaca cacacacaca caacaccc    2820
cagctggccg gacacacaca cacacagtac cccagctggc cggacacaca cacacacagc   2880
accctatcca gacacataca cacacacagt accccagcca gctggaaaca cacacacaca   2940
cagcactcca tccagacaca tacccacaca gtaccccagc cagccagaca cacacacaca   3000
cacacacaca cacacacaca cagagcacac acacagcacc ccagctggcc acacacacac   3060
acacacacac cctgtccaca aagggcctag gaaactacgt gcccttcagc catgcacccg   3120
accatgggcc cccaggttca ggtgcacacg gtgggcctgt acgctcacac acccttacac   3180
cctcactctc acacacatgc ttacacactt attcattctc acatatatgc tcatgctcat   3240
tcacacacaa tcccgggcca cctgccctaa agtccccaca cagccctatc tttgcctttt   3300
gtcccccac atagagttct aaaccacagc acccccacta ggcctgcttc ctcccattcc   3360
agtggtccct gagcccttgg gccggcctga atagggtggg gcttccctcc cagaccctaa   3420
```

33

```
cactcccacc ctgtgctgtg ccccaggact caaacggcat ctgtatgcac ctgggcctgt    3480
gcaaatcccg gcagccagag ccagagcagg agccagggat gtcagacccc ctgcccaaac    3540
ctctgcggga ccctctgcca gaccctctgc tggacaagct cgtcctccct gtgctgcccg    3600
gggccctcca ggcgaggcct gggcctcaca cacaggtgag ggaggccccc acagccagta    3660
aagtggagat ccagagggct agagccacct ccgaagccca tgggcactgg gccctgggag    3720
aggcagagcc gggaaggtga taggaagctc caggcagggc ctaagggagg agggagagaa    3780
agggaggaag agagagggga ggagagcctg gaggactctt ctcccagcac ccagcctggc    3840
ctccacctga ttctttcccc aggatctctc cgagcagcaa ttccccattc ctctcccctn    3900
ttgctggctc tgcagggctc tgatcaagcg gatccaagcc atgattccca aggtgaggca    3960
tccagggcct caagagccca ggagcacacg catacctgta gctccctgca gctcccacct    4020
ctctcccaac tcacacccccc gtcagaccca gctggctgcc agaagttagg aggggagaga    4080
gccgcttgtg cattgccccc acccagggac cctgggctca ggctcaggcc tggtaggtgc    4140
caggtacagt tcatgcaaca aacattaagc ccccactgta tggaggtgcc agccaggagc    4200
caaagtacaa aaacggacaa gacgcagctt tgtcctccag cagctcacca tctgatggag    4260
aaagatcccc agaggtctct gtagaaaggt tgctttgatc tttcaagagg ggaatttcca    4320
cagatagatt ccccatcctt gcctgagtcc aacttggagt cttccagacc tgcagtggct    4380
attgtccaat ggccccgcca gcccagggct accttgccca aattggggcc caaatgagga    4440
aaggccctgc cccctcagcc tttcccagat tgggttgcgt gggccaccag gggcacaagg    4500
cagcaggtga ggttcctgct gaggcaggtg gttcacttga gcccaggagt tcaagaccag    4560
cttgggcaac atggcgaaac cccgtctcta ctaagaatac aaaaattagc cagatgtgac    4620
aggtgcctgt agtcccagct actcgggagg ctgaggcagg agaatcactt gaacccagga    4680
ggcggaggtt gcagtgagcc gacatcacgc cactgtactc tagcctgggt gacagagcaa    4740
gactctgtct caaaaaaaaa gaaagaagga aagatcactg cagagattgc agtgagaggt    4800
gatgggacag ggacggagct gagggctggc ctggggatgc atttgggagg tgggcccact    4860
gctatgggca tggatgggcc tggagcgtga ggaccaggga ggactccaaa gtgacttta    4920
cacactggcc agagcaacca gccctctgta atgccagcag ctgagatggg gagactaaag    4980
aagaaaacag gtttgagcaa aaaaacagag agctccctcc tggccatgtt gagttcaaga    5040
tgcctgtgtg aagtgcagga gaggagagtc aggcaagcag ctgaatccca agcattgggg    5100
gaaggtcagg tccaccatgt cagtctgaga gtcactagct gtgggccaga gcctttgggg    5160
ccagacgtag gtctgaagct ggctcctaca ctcagtgacc ctgtgtgagt cccctgcatc    5220
ccctggactc tctgatcccc agtgtcctta tttgtgaata gccttgccct cccttctaga    5280
agagaatgag ggaatgcgta ggaagtgccc agctgggtgc tgggcagaga gtggaggctt    5340
gccaagtgaa ggtcccatgc tggcctctct ccgcccccgc cccagggtgc gctacgtgtg    5400
gcagtggccc aggtgtgccg cgtggtacct ctggtggcgg cggcatctg ccagtgcctg    5460
gctgagcgct actccgtcat cctgctcgac acgctgctgg ccgcatgct gccccagctg    5520
gtctgccgcc tcgtcctccg gtgctccatg gatgacagcg ctggcccaag tgagcccact    5580
gccccctcct tagcccaatg cccgctctcc tcctccccct accctgccac tgcatgaccc    5640
tctccctctg tggtcccact gcaatgcacc aaggaggaca gaaaccaaac acctctgtag    5700
ggtggccttg cctgctttcc ccctaatgct cacatctcca gggtcgccga caggagaatg    5760
gctgccgcga gactctgagt gccacctctg catgtccgtg accacccagg ccgggaacag    5820
cagcgagcag gccataccac aggcaatgct ccaggcctgt gttggctcct ggctggacag    5880
ggaaaaggta tgggctgggc acatggggac tcatggtcag gcccgttca aggcagaagg    5940
ctgagcccag gaaaggcttt gcagccagag acacctagga tgggccagaa tggagcacag    6000
acaggcagac aggatgtggg gcagacaatg gtgggactgt aagttagggc agagcctgct    6060
aagggttagg agtcgcctct ggacaaaggg ctgtgggctc cagaggacca gcaggccctc    6120
ttcacgggct gagtgagcac caggcaagcc ttcagaggcc tggttatcta ccaggagatg    6180
agtaatgcta gggccagttc aagccaggaa agggactagc cttctctcca gggtcctgat    6240
```

34

```
ccctttactg ccccccacact cctcaaggtg tgactcactc aggacaaacc cattggcaaa    6300
aggagagggc tggacttgaa ggtcctaggg cccttgccaa tactcagtca atgacaggaa    6360
attccctttt ttttttttttt tttttttttt ttgagatgga gttttgctct tgttgcccag    6420
gctggagtgc aatggcacaa tcttggctca ctgcaacctc tgcctccggg ttcaggcgat    6480
tctcctgcct cagcctcttg agtagctggg attacaggca tgtgctacca ggcccggcta    6540
attttttgtat ttttagtaga dacaaggttt caccatattg gtcaggctgg tctcgaaccc    6600
ctgacctgaa gtgatctgcc cgccttggcc tcccaaagtg ctgggattac aggcataagc    6660
cactgcaccc ggacaggaaa ttcccttctt aaagcgagat cctgtcctga ggaaagccag    6720
ctgatgctct tcccaggagg cagctgtcca cactgtgctc cctgctcagc aactcccaag    6780
cctcccgact gcccatcaca tctggtctca aggaccagat gaacgttaag gttccttcta    6840
gaactgaaat ggaggtggag ggaggggagg gtggtggctg agattccacc cctctgcctg    6900
agtcctccgt ctccagtgtc gcctgctttt ctgatggaag tcctccattt cagcctggct    6960
ccagtttgtt aagggtttca actgcagcca gaggtgttcc gtgagggctg atggaggagt    7020
cgggagggag ccctagagtg atccagagat gtggagaggc ccaggaccac acgacaggag    7080
agtcctgcaa agggacctcc acagctgtgt gtctccctca gtgcaagcaa tttgtggagc    7140
agcacacgcc ccagctgctg accctggtgc ccaggggctg ggatgcccac accacctgcc    7200
aggtacaccc aaccctccc aagttggtcc taggacttcc cttggctccc agagcccca    7260
cccttgggc ccgtgatcct cagaggcctc actcccctgg gtccaaggtg tcccaggtg    7320
cacgggccag ggactgggag gcacccctct ctgtttcagt gtaaaaaatc atgagagcat    7380
ggaaaagggg gatgggaagg gagggatggc ctgaggagtg cggctggatg tccattatag    7440
gatggggctg tgttccctgg ccagtgtgtg ctggtggggt gggggtacaa agtgggtgtt    7500
ctggagtgaa catctcacct cctcaggctc taaaccctaa ggcctgtggc tcaggagtg    7560
gccgaggggt ctacagagtc acactggtag cacccactag gcgggaggtg gagtgagtgc    7620
tgttctttcc cggaagagct gggtgtgggg agctgagggg gcccaggcct cagccctggt    7680
gctgtccctg tgacaggccc tcggggtgtg tgggaccatg tccagccctc tccagtgtat    7740
ccacagcccc gacctttgat gagaactcag ctgtccaggt gagtccaggc ccccagttgc    7800
ggggaggtaa gggggcaggt cctgaccatc agggcatggg aggcccttct gctccccaag    7860
caggaagagg cggccactcc tgccggctgc tccatcctcc ctctcaccgc acagctggag    7920
gctcctgagg gcttctggct ggccatcagg aaaacaccct ttccggaccc cgagcactgc    7980
cccgcccaga accccagtca ctgagtgccc aaccccagc ttccccccca acccccgcc    8040
ctgccctgtc ccaggcctcc ctctcagagc ttgccccagg gactctctgg ccctcagggt    8100
tcaatgtatt ctgaccaagg ccaagctttc ctggggctca gggaaaatca cactttgcta    8160
cccgaagctg tatcccctca gatgccagga aggccgtgat catctgactc caccctcctg    8220
agacacattc tctccctgac tgtcctgttc taagtcagcg gagcacctta ggatggaggg    8280
gtggaggcga ggccagatgc agcctctgtg aacaggtgcc tggaggctgg gaaatgaccc    8340
tgagagggca ggacacagca accgtgggct taaggtgacc ttgagagcaa gcttggccca    8400
ctttacaatt ctgttcagag ccagccccta acatggtggt catttattca tttgttccct    8460
cattttaaaa aatgtaaggc caggcatggt ggctcacgcc ggtaatccca gcactttggg    8520
aggccgaggc aggcagatca cctgaggtca ggagttcgag actagcctgg ccaacatggc    8580
gaaaccctgt ctctactaaa aatattttt aaaaattagc tgagcatggt ggcaggtgcc    8640
tgtaatccca gctactcagg acgcttaggc aggagaatca cttgaacctg ggaggcgaag    8700
gttgcggtgt gctgagatcg tgccactgca ctctagccta ggcaacagag cacaactctg    8760
tctcaggaaa aaaaaaaaaa aaaaaaagg tatttctttg ctgggcgcag tggctcacac    8820
ctgtaatccc agcactttgg gagaccgagg cgagtggatc acttgaggtc aggagttcaa    8880
gaccagcctt accaacatga tgaaaccccg tatctactaa aaaaaaaaaa aaaaaaaaaa    8940
aaaaaattag ccagatgtgg tggcacacac ctgtaatccc agctacttgg gaggctgagg    9000
aggagaattg cttgaacctg ggaggcggag attgcagcga gccaagattg cgcctctgca    9060
ctccagcctg ggtgacagag tgagactccg tctcaaaaaa aaaaaaaaaa aagtagtggg    9120
```

35

```
tgcctgtggc caggccacat cctagggtag gggctatggc tgagccctgc cctcctggag    9180
ctcacagcca agtccacttc ttccatctga ggcggggaag ccagccctgt tcctgaaacc    9240
ctgcatcaca agcccctgtg ggaggcagtg gggaggggag gtcctccccc actcagacct    9300
gacccacagg gaccagttta atgtgtcctt gccccagtga tgacagctgg ggatctgggg    9360
gtggggagtc acccaggacc cgggcagtcg cctttcccca gctcctaggg ctcccggcct    9420
tccctgctga aacagcaaga ccagtgggtt ggcgtgggag gcctgggctt caaaccacct    9480
ctgctatcac ctggctgtgg gtccccaggc aggacataca cacagtccct ctctggccct    9540
catcctcctc agctgcaaag gaaaagccaa gtgagacggg ctctgggacc atggtgacca    9600
ggctcttccc ctgctccctg gccctcgcca gctgccaggc tgaaaagaag cctcagctcc    9660
cacaccgccc tcctcaccgc ccttcctcgg gagtcacttc cactggtgga ccacgggccc    9720
ccagccctgt gtcggccttg tctgtctcag ctcaaccaca gtctgacacc agagcccact    9780
tccatcctct ctggtgtgag gcacagcgag ggcagcatct ggaggagctc tgcagcctcc    9840
acacctacca cgacctccca gggctgggct caggaaaaac cagccactgc tttacaggac    9900
aggggttga agctgagccc cgcctcacac ccaccccat gcactcaaag attggatttt    9960
acagctactt gcaattcaaa attcagaaga ataaaaaatg ggaacataca gaactctaaa   10020
agatagacat cagaaattgt taagttaagc tttttcaaaa aatcagcaat tccccagcgt   10080
agtcaagggt ggacactgca cgctctggca tgatgggatg gcgaccgggc aagctttctt   10140
cctcgagatg ctctgctgct tgagagctat tgctttgtta agatataaaa aggggtttct   10200
ttttgtcttt ctgtaaggtg gacttccagc ttttgattga aagtcctagg gtgattctat   10260
ttctgctgtg atttatctgc tgaaagctca gctggggttg tgcaagctag ggacccattc   10320
ctgtgtaata caatgtctgc accagtgcta ataaagtcct attctctttt atgagaaaga   10380
aaagacacc agtcctttaa agtgctgcag tatggccaga cgtggtggct cacacctgca   10440
atcccagcac cttaggaggc cgaggcagga ggatcc                             10476
```

<210> 99
<211> 577
<212> DNA
<213> Homo sapiens

<400> 99
```
caccactgct ttagaggcca gattttctg gaggggattc ctctacacat gctacctcca     60
gttagcagga ggggaaggaa gggttgggag tcttggggag tctcaccatc aactcctcct    120
cctgctgctg ttccatttgc ctcagacatg gagttggagc tgctgcgggg cagccaggcc    180
atcatgctgc gctcagcgga cctgacagga ctggagaagc gtgtggagca gatccgtgac    240
cacatcaatg ggcgcgtgct ctactatgcc acctgcaagt gatgctacag cttccagccc    300
gttgccccac tcatctgccg cctttgcttt tggttggggg gcagattggg ttggaatgct    360
ttccatctcc aggagacttt catgtagccc aaagtacagc ctggaccacc cctggtgtgt    420
acctagtaag attaccctga gctgcagctg agcctgagcc aatgggacag ttacacttga    480
cagacaaaga tggtggagat tggcatgcca ttgaaactaa gagctctcaa gtcaaggaag    540
ctgggctggg cagtatcccc cgcctttagt tctccac                             577
```

<210> 100
<211> 1717
<212> DNA
<213> Homo sapiens

<400> 100
```
aagcttcagc tctttccttc ctcaatcctt ctcctggcac ctctgatatg ccttttgaaa     60
ttcatgttaa agaatcccta ggctgctatc acatgtggca tctttgttga gtacatgaat    120
```

36

```
aaatcaactg gtgtgtttta cgaaggatga ttatgcttca ttgtgggatt gtatttttct    180
tcttctatca cagggagaag tgaaatgaca acctcactag atacagttga gacctttggt    240
accacatcct actatgatga cgtgggcctg ctctgtgaaa aagctgatac cagagcactg    300
atggcccagt ttgtgccccc gctgtactcc ctggtgttca ctgtgggcct cttgggcaat    360
gtggtggtgg tgatgatcct cataaaatac aggaggctcc gaattatgac caacatctac    420
ctgctcaacc tggccatttc ggacctgctc ttcctcgtca cccttccatt ctggatccac    480
tatgtcaggg ggcataactg ggttttttggc catggcatgt gtaagctcct ctcagggttt    540
tatcacacag gcttgtacag cgagatcttt ttcataatcc tgctgacaat cgacaggtac    600
ctggccattg tccatgctgt gtttgccctt cgagcccgga ctgtcacttt tggtgtcatc    660
accagcatcg tcacctgggg cctggcagtg ctagcagctc ttcctgaatt tatcttctat    720
gagactgaag agttgtttga agagactctt tgcagtgctc tttacccaga ggatacagta    780
tatagctgga ggcatttcca cactctgaga atgaccatct tctgtctcgt tctccctctg    840
ctcgttatgg ccatctgcta cacaggaatc atcaaaacgc tgctgaggtg ccccagtaaa    900
aaaaagtaca aggccatccg gctcattttt gtcatcatgg cggtgttttt cattttctgg    960
acaccctaca atgtggctat ccttctctct tcctatcaat ccatcttatt tggaaatgac   1020
tgtgagcgga gcaagcatct ggacctggtc atgctggtga cagaggtgat cgcctactcc   1080
cactgctgca tgaacccggt gatctacgcc tttgttggag agaggttccg gaagtacctg   1140
cgccacttct tccacaggca cttgctcatg cacctgggca gatacatccc attccttcct   1200
agtgagaagc tggaaagaac cagctctgtc tctccatcca cagcagagcc ggaactctct   1260
attgtgtttt aggtcagatg cagaaaattg cctaaagagg aaggaccaag gagatgaagc   1320
aaacacatta agccttccac actcacctct aaaacagtcc ttcaaacttc cagtgcaaca   1380
ctgaagctct tgaagacact gaaatataca cacagcagta gcagtagatg catgtaccct   1440
aaggtcatta ccacaggcca ggggctgggc agcgtactca tcatcaaccc taaaaagcag   1500
agctttgctt ctctctctaa aatgagttac ctacatttta atgcacctga atgttagata   1560
gttactatat gccgctacaa aaaggtaaaa ctttttatat tttatacatt aacttcagcc   1620
agctattgat ataaataaaa cattttcaca caatacaata agttaactat tttattttct   1680
aatgtgccta gttctttccc tgcttaatga aaagctt                             1717
```

<210> 101

<211> 1915

<212> DNA

<213> Homo sapiens

<400> 101
```
ttagagccgg gtaggggagc gcagcggcca gatacctcag cgctacctgg cggaactgga     60
tttctctccc gcctgccggc ctgcctgcca cagccggact ccgccactcc ggtagcctca    120
tggctgcaac ctgtgagatt agcaacattt ttagcaacta cttcagtgcg atgtacagct    180
cggaggactc caccctggcc tctgttcccc ctgctgccac ctttggggcc gatgacttgg    240
tactgaccct gagcaacccc cagatgtcat tggagggtac agagaaggcc agctggttgg    300
gggaacagcc ccagttctgg tcgaagacgc aggttctgga ctggatcagc taccaagtgg    360
agaagaacaa gtacgacgca agcgccattg acttctcacg atgtgacatg gatggcgcca    420
ccctctgcaa ttgtgccctt gaggagctgc gtctggtctt tgggcctctg ggggaccaac    480
tccatgccca gctgcgagac ctcacttcca gctcttctga tgagctcagt tggatcattg    540
agctgctgga gaaggatggc atggccttcc aggaggccct agacccaggg ccctttgacc    600
agggcagccc ctttgcccag gagctgctgg acgacggtca gcaagccagc ccctaccacc    660
ccggcagctg tggcgcagga gcccctcccc ctggcagctc tgacgtctcc accgcaggga    720
ctggtgcttc tcggagctcc cactcctcag actccggtgg aagtgacgtg gacctggatc    780
ccactgatgg caagctcttc cccagcgatg gttttcgtga ctgcaagaag ggggatccca    840
agcacgggaa gcggaaacga ggccggcccc gaaagctgag caaagagtac tgggactgtc    900
```
```

```
tcgagggcaa gaagagcaag cacgcgccca gaggcaccca cctgtgggag ttcatccggg      960
acatcctcat ccacccggag ctcaacgagg gcctcatgaa gtgggagaat cggcatgaag     1020
gcgtcttcaa gttcctgcgc tccgaggctg tggcccaact atggggccaa aagaaaaaga     1080
acagcaacat gacctacgag aagctgagcc gggccatgag gtactactac aaacgggaga     1140
tcctggaacg ggtggatggc cggcgactcg tctacaagtt tggcaaaaac tcaagcggct     1200
ggaaggagga agaggttctc cagagtcgga actgagggtt ggaactatac ccgggaccaa     1260
actcacggac cactcgaggc ctgcaaacct tcctgggagg acaggcaggc cagatggccc     1320
ctccactggg gaatgctccc agctgtgctg tggagagaag ctgatgtttt ggtgtattgt     1380
cagccatcgt cctgggactc ggagactatg cctcgcctc cccaccctcc tcttggaatt     1440
acaagccctg gggtttgaag ctgactttat agctgcaagt gtatctcctt ttatctggtg     1500
cctcctcaaa cccagtctca gacactaaat gcagacaaca ccttcctcct gcagacacct     1560
ggactgagcc aaggaggcct ggggaggccc taggggagca ccgtgatgga gaggacagag     1620
cagggctcc agcaccttct ttctggactg gcgttcacct ccctgctcag tgcttgggct     1680
ccacgggcag gggtcagagc actccctaat ttatgtgcta tataaatatg tcagatgtac     1740
atagagatct attttttcta aaacattccc ctccccactc ctctcccaca gagtgctgga     1800
ctgttccagg ccctccagtg ggctgatgct gggacccttacctaga gcttgggct cccagctcct     1860
ttctcctgtg aatggaggca gagacctcca ataaagtgcc ttctgggctt tttct     1915
```

<210> 102
<211> 1130
<212> DNA
<213> Homo sapiens

<400> 102
```
tgagagtccg gctcaggctc cggctgcggc tccagcccgc gatgccccat tccgtgaccc      60
tgcgcgggcc ttcgccctgg ggcttccgcc tggtgggccg ggacttcagc gcgcccctca     120
ccatctcacg ggtccatgct ggcagcaagg cctcattggc tgccctgtgc ccaggagacc     180
tgatccaggc catcaatggt gagagcacag agctcatgac acacctggag gcacagaacc     240
gcatcaaggg ctgccacgat cacctcacac tgtctgtgag caggcctgag ggcaggagct     300
ggcccagtgc ccctgatgac agcaaggctc aggcacacag gatccacatc gatcctgaga     360
tccaggacgg cagcccaaca accagcaggc ggccctcagg caccgggact gggccagaag     420
atggcagacc aagcctggga tctccatatg gaaaacccccttgctttcca gtccctcaca     480
atggcagcag cgaggccacc ctgccagccc agatgagcac cctgcatgtg tctccacccc     540
ccagcgctga cccagcagag gcctcccgcg gagccgggag cagagtcgac ctgggctccg     600
aggtgtacag gatgctgcgg gagccggccg agcccgtggc cgcggagccc aagcagtcag     660
gctccttccg ctacttgcag ggcatgctag aggccggcga gggcggggat tggcccgggc     720
ctggcggccc ccggaacctc aagcccacgg ccagcaagct gggcgctccg ctgagcggcc     780
tgcaggggct gcccgagtgc acgcgctgct gccacggaat cgtgggcacc atcgtcaagg     840
aacgggacaa gctctaccat cccgagtgct tcatgtgcag tgactgcggc ctgaacctca     900
agcagcgtgg ttacttcttt ctggacgagc ggctctactg tgagagccac gccaaggcgc     960
gcgtgaagcc gcccgagggc tacgacgtgg tggcggtgta ccccaatgcc aaggtggaac     1020
tcgtctgagc tgggaccctg ctcccacccc tgcttcttaa ggtccctgct cggccggtgt     1080
aaatatgttt caccctgtcc ctctaataaa gctcctctgc tcaaaaaaaa     1130
```

<210> 103
<211> 8670
<212> DNA
<213> Homo sapiens

38
```

<400> 103
```
gagctcaaga gttcaagacc cgtctgggca agatggcaaa actccatcac cacaaaagat   60
gcaaaaagat gcgcacagtg gcgcacacct atagccccag ttactgagga ggttaatgtg 120
ggaggatcac atgaggctgc agtgagctgt gatggtgcca ctgtactcca gccttggcga 180
cagtgagtct atgtctcaaa taagtaagta aacaaaaatt aaaaagaatc cagtccacag 240
ggcatttgaa ggcaagagga aaagatgcca gaatcagaga tggggagaag atgggcttca 300
cgcacctgct gaggttgaga aatgagacag ataggctgag tgtggggtgg agagaggatg 360
ggcagagaga ctgaggctgg tctgaatgga aatgaaatgt tagggctctc agggttatcg 420
gggaataatt ggagcttcta ggaaaggttt aacgttgtga ccacctgtgt gcgtcatgcc 480
tccccacccc ttactaattg tgtgaatttg gcagactttg agtctcagtg ttctcctctg 540
tgaagtgggg tcatcttatt ccaactcctg ggattgttgt gtgaattaaa tggggtaatg 600
tacggagagc acctgacgca cagcgagtgc ttcaaaattt cagtctgcac cccccagcaa 660
aggatatgca cacgcccatt gtgagtgaca aatccaggat gacctgaacc caatgtgata 720
acgtgggtcc tcgcatgctg gtcatgctgc cgggagacac ttatggatcc aattagtaca 780
acaggggaaa taaattattt aatgcatttt gctaagacag aatacctcag aacttatttt 840
gtggggtggg gcataataaa ggggggtcctt ctgctgaaaa cgtttaagct caggttcgtg 900
gcaccactca accaaggtcg acagtcacac agtaagccag aggcaatgtc aggacttaaa 960
ctaaacctgt ggcccccaca atgaggccat ttctctttcc cctgaacggc ctggggaaag 1020
ggggtgggtg ggcagaactt ggcagtggcc aatccctcac ttctgtcccc tggttttctc 1080
ctgcccttat ctctaggctt gcattgattg attgattgag acagggtctt gctctgtcgt 1140
ccaggctgga gtgcagtggc acgatcatgg ctcactgcag cctcaaactc ctaggctcaa 1200
gtggtctttc cgcctcctat ctcccgagta cccatatccc taggctttta aaatggcttc 1260
caggtatctg ctgccgtct cagacatcca cctgggcttc tgggcaggga ctgtccggga 1320
aacctcatct atgtgaagca ggtgtgggtg taggaaggcc gcttggaaat gaatcagcac 1380
tgtctcctgt ttgagtcgta agcagggcgc cagagggtct ggcggacaag aaagggagga 1440
tgacaggagg ccggcactgc aatgacacgc cttagccacc agagggcacg aagcagctgg 1500
gcaaaatccc gcggggcccc tggtggaaaa tttctggcac ctggagcccg gagatggggt 1560
ggacggaatg tgaggaccca gcttcctgag ctgggccggg gcagagtca ctgctttgga 1620
tgtccgcagg gcctgcttgt gtcttgacta ctctgccttt gtagacagct ggagaatgtg 1680
agagtgggat tgggatcgga ctctagggcc attccgtaca actctcctgc cctgccgtgg 1740
gggagggagt tgcccaaggt tacgcagcaa gttagtggca aatgaatacg attatcacca 1800
gtctcaggta tatggccatt tgatgggcgc agtcgcagcc tcagttcctg agacagagac 1860
acctgattaa ggacaggcct tcaggagctg accctagtga cccgcggctc tgctgctgtc 1920
tctgtttttc tccctggctt ttccatctga ctgactcttt gtcttcttcg tctgcctgcc 1980
tgtctccgtc tctgcccgct ggggggtttg ctcaactccc tcactgggtc ctgggagccg 2040
cagtttcctg ctgtcactcc tcagggattt gtagctctct gaagctcttt tccgacccgt 2100
tgtctcggtt ccactcttgg gatccagagg agaggtgatt atttcgtagc atagtcagtg 2160
gtgtgatttc acggggtgag aaggactccc ttgctcctaa gcactcctcc agtgacccct 2220
gttgccatgt ggtagccgta agcactggtt ggcacctggt gtgggcgaga cccttacctc 2280
atgcagaaat gagtaagact ggtgagctca ctatgtgggg tgaggctgag agaaaacaag 2340
tacacaggtg attcagtcaa aatcagaatt ctctaagtac acacgaaaag ggcaaagggg 2400
gcgctttgta caggacagaa caggtagaca ctgaatccgg ttgggccctg gaaggctcc 2460
ctgcagtggc ctttgaaggg ggggttggat ttcagcagga tagagggcat gggcatgtgt 2520
gggcacgttc tgaacagagg ggtcagcgca agccgagggt cttggccaca ctagttgcat 2580
gtgccggtgt gtttaaggga cacgcagcag caggccgagt ctggagcgcc tcactgccag 2640
gctttttaaa aattttaat tttaatttaa ttttatttta ttttacttt aagttctggc 2700
atacatgtgc agaatgtggt ttgttacata ggtatacatg tgccatggtg gtttgctgca 2760
```

39

```
cctatcaacc catcatctag gttttaagcc ccgcatgcat caggtattag tcctaatgct    2820
ctccctcccc ttgcccccat ccttctcccc gcaactgccc acaggccctg gtatgtggtg    2880
ttcccttccc tgtgtccata tgttctcatt gttcaactcc cacttatgag tgagaacata    2940
ccgcctggct ttaagggaca gccatgggga tgcactgcag tttctgagca gggaaggccc    3000
tgtggaggcc cttagttaaa aggaaagaat ggctgtgaaa atcgatgcat tgcgctccct    3060
tgtccctcac cctcagtgtg aagggttttt attccgagtt ctacttgaag taggcctcga    3120
tgggaagaca agtagcatga ggggttcaag tactgagggg agcaagggac actcggtggc    3180
tgtgccaagg tgtagaagag gacactgggg gccccaagac ctgacttcat gtacactgct    3240
caggctggcc cccaagtcac acggtgaccg ctaggaaggg accagcctgt tctcagtctg    3300
atcctacagc catgtcatta tccaaagctc ctcctggcag ggcctgtttg gggtctctgt    3360
gccagtgctt tccctgccag gctgggctgg ggcttccacc tactgctctg ggactgctgc    3420
tgccctggcc ctgggggagg agggtgtgcc gctgagtcac tgcctgggca tctgggcctg    3480
gaacctcggg tgagtcactt agggctgagg tagaggggct gggggagggg aagaagctac    3540
tcgacagctg gagcagggag gggagctggg gccacaggaa gggcggtgcc ctgatgccca    3600
gacgggccgg gatagacaaa gggccaagga ggaaggggcc ctgggagggg gcagccctcc    3660
cttgggctgg ggtctgaatg gcacagtgtt tgcctttctc cgggtctggg gaggacatgt    3720
gtgtgggggg cagtgagaga gggctgtggc tgagggctgt gcttcaggcc tggattctgg    3780
cttgggaagc tgtccagctg gtgtttttcag ccttgggtag ggatgtaccc ctacccaccc    3840
acccagccct caagctggag aagaggaggc caaagttttc ctgttcagcc tttaactact    3900
cgggacttcc ttatgctccc cacagactgt ggcccagccc aactgcggct gtgtgtagag    3960
caaccccatt tctcactgct tccccatcct tccagacacc ttcctacaca gagggacctt    4020
cccaggtatt tctaagcaca cttagttacc tcattacctc attaagaggt attctggtgc    4080
tggccattaa aagtcactcc acttcatcca tgccctgaag tcagtcctgt ccttctcctc    4140
ctgatgtccc ccagctgcct cctctggccc ccagcttcct aaggtggccc caggttgctt    4200
ctctctcaca cacacgggcg catgtatgta cacgagcact ggaccatgaa gtctcagcgt    4260
gtgctcacag cctctcacac aggagtgggc tgtgactcac aggcatgtca tgagaatgag    4320
gcctggcacc agtctccagg ccccagagca ggggttgcct cccctcaccc cggtccagga    4380
tgcccagtcc ccacgacacc tcccacttcc cactgtggcc tgggtgggct caggggctgc    4440
ccttgacctg gcctagagcc ctcccccagc tggtggtgga gctggcactc tctgggaggg    4500
aggggctgg gagggaatga gtgggaatgg caagaggcca gggtttggtg ggatcaggtt    4560
gaggcaggtt tggtttcctt aaaatgccaa gttgggggcc agtggggccc acatataaat    4620
cctcaccctg ggagcctggc tgccttgctc tccttcctgg gtctgtctct gccacctggt    4680
ctggtgagta cctctgtcct gctgagggca gggtggggag gatccccgtg ggtctctgtc    4740
tttgtctcca cagttctctc attccagctt ccctggtggg atcaacctgg gcctctctgg    4800
gccttccccc ttggaagaac tctctgtgaa gtgctgaagt gttgactgaa gggtttttt    4860
ttttttttt ttttttgag atggagtctc gctctgtcgc ccaggctgga gtacagtggt    4920
gtgatctcag ctcactgcaa actcccctc ccaggttcac gccatttccc tgcctcagcc    4980
tcccgagtag ctggactgc aggcgcccac caccatgccc ggctaatttt tttgtatttt    5040
tagtagagat ggggtttcac catgttagcc aggatggtct cgatctcctg atctcgtgat    5100
ccacccatct cggcctccca aagtgctggg attacaggag taagccaccg cgcccggccg    5160
actgaagggt ttttctccag gttcctctgt gaggtctcag tgcaggggtt gctctgaggc    5220
cctcccctgg atatctcagt ctaggggccc ttctttgggg gtctaggcct aggagcagga    5280
ggtgtgcatg tgggcgttgc tgcaaaaaga atcctgagat ttttttttt tttttttttt    5340
ttgcaaagtc ctggattcta gcaggactaa ggtgcaagag gcagggtct caagactctg    5400
cctgggtcat ggccccaagc agcaaagctc tgcccctgc ctcggtgaag gcagggctgg    5460
catgatgggc ccagggcatg ccctgcctct ggcatagctc ctctggcctc accctgaaac    5520
ctgcctaacc tttccaggct ggtctgagta ttctcagagg ccttgccgct gaggtctgtc    5580
ccatcctgat cccaaggcaa tgaacatttc atatctttaa ttctaattcc aacaggatcc    5640
```

                                        40

```
ttcctggtgg agagaatgtt aagttgcccc caccctatcc atgcccctgt ctgcctagag    5700
gctcaggggc cttcagggtg aggggagaca cattccccac cctctgggag ctcctagtct    5760
gagagaggaa acactcctgc ccaagggagc ttccagttag atggcagaga gagatgcctc    5820
tggcttcagg agtcccgagt ctaaggaggg aaacgactcc ttcagggagc ttcctgctcc    5880
taggctgtag ccatggctcc tgccagactg cacaggagcc cccatctgcc agccggtgca    5940
tgtggccctg ctccccagag cctgcgcaga tgccatcaaa atgggactct ggtcaccctg    6000
tcatttccct tctggcagac actaaaatgg ggagccctgc cctcaggggg gtgtcccaag    6060
tgccatcaga ggaggcttgg tgactcccag acacaaggga agctttagcg tctgccctca    6120
gggtgagatg gaggtatccc tccggcctca gggaaccaca gtctgagggg agatgcagcc    6180
cctgccttcc cattcagaga ggggtttttgt gaggtggctt gggggcatag ggcagaagtg    6240
gatcctacag gctgagctaa ggccccaaga gcctcagcag tgtacccatc acctggcacc    6300
tctgcagcca cagatccatg atgtgcagtt ctctggagca ggcgctggct gtgctggtca    6360
ctaccttcca caagtactcc tgccaagagg gcgacaagtt caagctgagt aaggggggaaa    6420
tgaaggaact tctgcacaag gagctgccca gctttgtggg ggtgagtggc acaggcctgt    6480
gggggaggtc ctggtgtgag tgtgggggtg caggttaaat ctctccccca gttccgggtg    6540
cctgtcgatg caggtgccag ggtggggccc agcccctccc cactttagct tcatggctcc    6600
actggagtgg aaatgaggcc cgagtgggag tgcttaatta atggctgttt cctgcaacat    6660
tccagagaac catgtgctgt gagggccttc cgagtccatc tgtttaatcc tgtcattgga    6720
acttgagaaa ccagagccca gaagggaaaa gtgattgtcc caagatcaca cagcactggc    6780
acgttctctc tctctctttt cttttctttt ttttttttttg agatggagtt tccctcttgt    6840
tgcccaggct ggagtgcaat ggcacgatct cggctcactg caacctctgc ctccaggggt    6900
caagcaattc tcctgtctca gcctcctgag tagctgggac tacaggcgca tcccactacg    6960
cccagctaat ttttgtattt ttagtagaga cagggtttca ccatattggc caggctggtc    7020
tcgaactcct gacctcgtga tctacctgcc tcggcttccc aaagtgattt ttgtattttt    7080
agtagagacg gggtttcatc atattggtca ggctggtctc gaactcctga cctcaggtga    7140
tctgccctcc tcggcctctg aaagtgctgg gcttacaggc gtgagcaccg tgcccggact    7200
ccttttttttt ttttttttttt ttgtggtggg gggacaagat ctcactctgt cacccaggct    7260
ggatcatagc tcactgtaat ctcgaactcc tgggctcaag caatcctccc aagtagttgg    7320
aactacagga gtattgtcac catgcctggc caatttttat ttttttgtaga gatggagtct    7380
tgctatgttg tccaggctgg gcttgaactc ctgggttcaa gcaatcctcc cacctcggcc    7440
tcccaaagta ttggaattac agatgtgagc cactgtgctt gacctctttc cattttttata    7500
tgccaaacta agaaagtatg ttagggatag aaaagccctg ctcagatata tagtctggga    7560
cattttgtgg agaaatgcat cgaccttcaa tttgtccctc accctcccta tactgactca    7620
ttggtgattc ccaaagttag gtgtcaggct ttgaacacat gaggcaggtc cttctttcct    7680
tggtttaatt ttgttttttgt ggctggttaa atttttctaa ttatttcggc tagtattaaa    7740
aaagtgtttt tcagctgggt gcagtggcct atgcctgtaa tccccacagt gtgggaggct    7800
aaggcaggag gatctcttaa gcccaggagt tcgaccagcc tgggcaacat agcaagactc    7860
catctctaca aaaataaaaa taaaaattgg ccaggcatgg tggcatacgc ttgtagtccc    7920
agctacttgg gaggctaaag gtgggaggat tgctggagcc caggaggttg aggctgcagt    7980
gagttgtgat tgtgccactg cactccaacc tgggctaaca gagcaagacc ttgtcttaaa    8040
aaataaaaag tgttctttttc tgaatctacc tggctggtgt tggggagcag caacttcggt    8100
ttcctcatca gcagaatggg gtgatgatac ctacctcgct gggctcctgt gggattcgag    8160
ctgatgcatg ctcagaggag catccagtgt cctccctgtg tccaggagga gggcacactg    8220
gagatgctca ccaatgagta tctgtctctc tccttactca ctgggccctc ttggtagctc    8280
ccagagcctc ctgcccacct tatacccagc tgcccagtgg ggagggagag ctggaaccaa    8340
cctgaatgtg tgagggtctg ggtgtttggt ggagctgggg ttggggctgg cttggtgatg    8400
agtgtatttc ctgtcacttt caggagaaag tggatgagga ggggctgaag aagctgatgg    8460
```

41

```
gcagcctgga tgagaacagt gaccagcagg tggacttcca ggagtatgct gttttcctgg   8520
cactcatcac tgtcatgtgc aatgacttct tccagggctg cccagaccga ccctgaagca   8580
gaactcttga cttcctgcca tggatctctt gggcccagga ctgttgatgc ctttgagttt   8640
tgtattcaat aaactttttt tgtctgttga                                     8670
```

<210>   104
<211>   2720
<212>   DNA
<213>   Homo sapiens

<400>   104
```
cgccccccccg gtgtccgccc tgctgtcggc gctggggatg tcgacgtaca agcgggccac    60
gctggacgag gaggacctgg tggactcgct ctccgagggc gacgcatacc ccaacggcct   120
gcaggtgaac ttccacagcc cccggagtgg ccagaggtgc tgggctgcac ggacccaggt   180
ggagaagcgg ctggtggtgt tggtggtact tctggcggca ggactggtgg cctgcttggc   240
agcactgggc atccagtacc agacaagatc cccctctgtg tgcctgagcg aagcttgtgt   300
ctcagtgacc agctccatct tgagctccat ggaccccaca gtggacccct gccatgactt   360
cttcagctac gcctgtgggg gctggatcaa ggccaaccca gtccctgatg gccactcacg   420
ctggggggacc ttcagcaacc tctgggaaca caaccaagca atcatcaagc acctcctcga   480
aaactccacg gccagcgtga gcgaggcaga gagaaaggcg caagtatact accgtgcgtg   540
catgaacgag accaggatcg aggagctcag ggccaaacct ctaatggagt tgattgagag   600
gctcgggggc tggaacatca caggtccctg ggccaaggac aacttccagg acaccctgca   660
ggtggtcacc gcccactacc gcacctcacc cttcttctct gtctatgtca gtgccgattc   720
caagaactcc aacagcaacg tgatccaggt ggaccagtct ggcctgggct tgccctcgag   780
agactattac ctgaacaaaa ctgaaaacga gaaggtgctg accggatatc tgaactacat   840
ggtccagctg gggaagctgc tgggcggcgg ggacgaggag gccatccggc cccagatgca   900
gcagatcttg gactttgaga cggcactggc caacatcacc atcccacagg agaagcgccg   960
tgatgaggag ctcatctacc acaaagtgac ggcagccgag ctgcagacct ggcacccgc   1020
catcaactgg ttgccttttc tcaacaccat cttctacccc gtggagatca atgaatccga   1080
gcctattgtg gtctatgaca aggaatacct tgagcagatc tccactctca tcaacaccac   1140
cgacagatgc ctgctcaaca actacatgat ctggaacctg gtgcggaaaa caagctcctt   1200
ccttgaccag cgctttcagg acgccgatga gaagttcatg gaagtcatgt acgggaccaa   1260
gaagacctgt cttcctcgct ggaagttttg cgtgagtgac acagaaaaca acctgggctt   1320
tgcgttgggc cccatgtttg tcaaagcaac cttcgccgag gacagcaaga gcatagccac   1380
cgagatcatc ctggagatta agaaggcatt tgaggaaagc ctgagcaccc tgaagtggat   1440
ggatgaggaa acccgaaaat cagccaagga aaaggccgat gccatctaca acatgatagg   1500
ataccccaac ttcatcatgg atcccaagga gctggacaaa gtgtttaatg actacactgc   1560
agttccagac ctctactttg aaaatgccat gcggtttttc aacttctcat ggagggtcac   1620
tgccgatcag ctcaggaaag cccccaacag agatcagtgg agcatgaccc cgcccatggt   1680
gaacgcctac tactcgccca ccaagaatga gattgtgttt ccggccggga tcctgcaggc   1740
accattctac acacgctcct cacccaaggc cttaaacttt ggtggcatag gtgtcgtcgt   1800
gggccatgag ctgactcatg cttttgatga tcaaggacgg gagtatgaca aggacgggaa   1860
cctccggcca tggtggaaga actcatccgt ggaggccttc aagcgtcaga ccgagtgcat   1920
ggtagagcag tacagcaact acagcgtgaa cggggagccg gtgaacgggc ggcacaccct   1980
gggggagaac atcgccgaca acggggggtct caaggcggcc tatcgggctt accagaactg   2040
ggtgaagaag aacggggctg agcactcgct ccccaccctg ggcctcacca ataaccagct   2100
cttcttcctg ggctttgcac aggtctggtg ctccgtccgc acacctgaga gctcccacga   2160
aggcctcatc accgatcccc acagcccctc tcgcttccgg gtcatcggct ccctctccaa   2220
ttccaaggag ttctcagaac acttccgctg cccacctggc tcacccatga ccccgcctca   2280
```

                                        42

```
caagtgcgaa gtctggtaag gacgaagcgg agagagccaa gacggaggag gggaaggggc   2340
tgaggacgag acccccatcc agcctccagg gcattgctca gcccgcttgg ccacccgggg   2400
ccctgcttcc tcacactggc gggttttcag ccggaaccga gcccatggtg ttggctctca   2460
acgtgacccg cagtctgatc ccctgtgaag agccggacat cccaggcaca cgtgtgcgcc   2520
accttcagca ggcattcggg tgctgggctg gtggctcatc aggcctgggc cccacactga   2580
caagcgccag atacgccaca aataccactg tgtcaaatgc tttcaagata tatttttggg   2640
gaaactattt tttaaacact gtggaataca ctggaaatct tcaggaaaaa acacatttaa   2700
acactttttt ttttaagccc                                               2720
```

<210> 105
<211> 4139
<212> DNA
<213> Homo sapiens

<400> 105
```
ccgctccacc tctcaagcag ccagcgcctg cctgaatctg ttctgccccc tccccacccca    60
tttcaccacc accatgacac cgggcaccca gtctcctttc ttcctgctgc tgctcctcac   120
agtgcttaca gttgttacag gttctggtca tgcaagctct accccaggtg gagaaaagga   180
gacttcggct acccagagaa gttcagtgcc cagctctact gagaagaatg ctgtgagtat   240
gaccagcagc gtactctcca gccacagccc cggttcaggc tcctccacca ctcaggggaca   300
ggatgtcact ctggccccgg ccacggaacc agcttcaggt tcagctgcca cctggggaca   360
ggatgtcacc tcggtcccag tcaccaggcc agccctgggc tccaccaccc cgccagccca   420
cgatgtcacc tcagccccgg acaacaagcc agccccgggc tccaccgccc cccagccca   480
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   540
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   600
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   660
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   720
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   780
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   840
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   900
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca   960
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1020
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1080
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1140
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1200
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1260
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1320
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1380
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1440
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1500
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1560
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1620
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1680
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1740
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1800
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1860
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1920
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca  1980
```
```

```
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2040
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2100
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2160
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2220
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2280
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2340
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2400
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2460
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2520
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2580
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2640
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2700
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2760
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2820
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    2880
tggtgtcacc tcggccccgg acaacaggcc cgccttgggc tccaccgccc ctccagtcca    2940
caatgtcacc tcggcctcag gctctgcatc aggctcagct tctactctgg tgcacaacgg    3000
cacctctgcc agggctacca caaccccagc cagcaagagc actccattct caattcccag    3060
ccaccactct gatactccta ccacccttgc cagccatagc accaagactg atgccagtag    3120
cactcaccat agctcggtac ctcctctcac ctcctccaat cacagcactt ctccccagtt    3180
gtctactggg gtctctttct ttttcctgtc ttttcacatt tcaaacctcc agtttaattc    3240
ctctctggaa gatcccagca ccgactacta ccaagagctg cagagagaca tttctgaaat    3300
gttttttgcag atttataaac aaggggggttt tctgggcctc tccaatatta agttcaggcc    3360
aggatctgtg gtggtacaat tgactctggc cttccgagaa ggtaccatca atgtccacga    3420
cgtggagaca cagttcaatc agtataaaac ggaagcagcc tctcgatata acctgacgat    3480
ctcagacgtc agcgtgagtg atgtgccatt tcctttctct gcccagtctg gggctgGggt    3540
gccaggctgg ggcatcgcgc tgctggtgct ggtctgtgtt ctggttgcgc tggccattgt    3600
ctatctcatt gccttggctg tctgtcagtg ccgccgaaag aactacgggc agctggacat    3660
ctttccagcc cgggatacct accatcctat gagcgagtac cccacctacc acacccatgg    3720
gcgctatgtg cccccctagca gtaccgatcg tagcccctat gagaaggttt ctgcaggtaa    3780
cggtggcagc agcctctctt acacaaaccc agcagtggca gccgcttctg ccaacttgta    3840
gggcacgtcg ccgctgagct gagtggccag ccagtgccat tccactccac tcaggttctt    3900
caggccagag cccctgcacc ctgtttgggc tggtgagctg ggagttcagg tgggctgctc    3960
acagcctcct tcagaggccc caccaatttc tcggacactt ctcagtgtgt ggaagctcat    4020
gtgggcccct gaggctcatg cctgggaagt gttgtggggg ctcccaggag gactggccca    4080
gagagccctg agatagcggg gatcctgaac tggactgaat aaaacgtggt ctcccactg     4139
```

<210> 106
<211> 1955
<212> DNA
<213> Homo sapiens

<400> 106
```
gaattcacca agcgttggat tgttcacccca ctaatagggga acgtgagctg ggtttagacc     60
gtcgtgagac aggttagttt taccctactg atgatgtgtt gttgccatgg taatcctgct    120
cagtacgaga ggaaccgcag gttcagacat ttggtgtatg tgcttggctg aggagccaat    180
ggggcgaacg taccatctgt gggattatga ctgaacgcct ctaagtcaga tcccgccca    240
ggcgaacgat acggcagcgc cgcggagcct cggttggcct cggatagccg gtcccccgcc    300
tgtccccgcc ggcgggccgc ccccccctcc agcgccccgc gcgcgcggga gggcgcgtgc    360
```
```

44
```

```
cccgccgcgc gccgggaccg gggtccggtg cggagtgccc ttcgtcctgg gaaacggggc      420
gcggccggaa aggcggccgc cccctcgccc gtcacgcacc gcacgttcgt ggggaacctg      480
gcgctaaacc attcgtagac gacctgcttc tgggtcgggg tttcgtacgt agcagagcag      540
ctccctcgct gcgatctatt gaaagtcagc cctcgacaca agggtttgtc cgcgcgcgcg      600
gcggcgtgcg tgcggggggc ccggcggggc gtgcgcgtcc ggcgccgtcc gtccttccgt      660
tcgtcttcct ccctcccggc ctctccgccg accgcgggcg tggtgggggg gtggggggg      720
gacgcgcgac cccggtcggc gcgccccgct tcttcggttc ccgcctcctc cccgttcacc      780
gcggggcggc tcgtccgctc cgggccggga cggggtccgg ggagcgtggt ttgggagccg      840
cggaggcggc cgcgccgagc cgggcccgtg cgcggtcccc gtcccggggg ttggccgcgc      900
gggccccggt ggggccaccc ggggtcccgg ccctcgcgcg tccttcctct cgctcctccg      960
cacgggtcga ccagcagacc gcgggtggtg ggcggcgggc ggcgaggccg cacgggcgtc     1020
cccgcacccg gccgacctcc gctcgtgacc tctcctcggt cgggctccgg ggtcgaccgc     1080
ctgccccgcg ggcgtgagac tcagccgctg tctcgccgtg tcccgggtcg accggcgggc     1140
ttctccaccg agcggcgtgt aggagtgccc gtcgggacga accgcaaccg gagcgtcccc     1200
gtctcggtcg gcacctccgg ggtcgaccag ctgccgcccg cgagctccgg acttagccgg     1260
cgcctgcacg tgtcccgggt cgaccagcag gcggccgcga cgtgcggcgc accgacgaga     1320
gggcgtgcat tcccgttcgc gcgcccggac cctccaccgg cctgggcccg acggtggagc     1380
tgggaccacg cggaactccc tctcctacat ttttttcagc cccaccgcga gtttgcgtcc     1440
gcgggatttt aagagggagt cactgctgcc gtcagccagt aatgcttcct cctttttttgc     1500
ttttaggttt tgctcttgcc tttttttttt tttttttctt tctttctttc tttctttctt     1560
tctttctttc tttctttctt tctttctcgc tctcgcctct cgctctctcc ctcgctcgtt     1620
ttctttctct ttctcttttct ctctctctct ctctctctct ctctctgtct ctcgctctcg     1680
ccctctctct ctctctcttc tctctgtctc tctctgtctc tctctctctc tctctctctc     1740
tctctctctc tctctctctc tctctctccc tcccctcccc tccctctctc cccttccttg     1800
gtgccttctc ggctcttgac acttagccgc tgtctcgccg tgtcccgggt cgaccggcgg     1860
gccttctcca ccgagcggcg tgtaagagtg cccgtcggga cgagccggac ccgccgcgtc     1920
cccgtctcgg tcggcactcc ggggtcgacc agctg                                1955
```

<210> 107
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 107
```
ggcacgagga ttatattttg catctccctg caagtctgtt ttatgttatt tatagcttcc       60
tattcgtgta gacaccagca gtaaactggg gaatatttgt ggcaggaatt tctaagaaca      120
acctttagca tcatctcagg ccctgatcca tttccttttc cacaaaattg tttgagatta      180
tatcgtatgt gttacagaaa gaatgttttt ctgtatgctc gaaactgtat actaaagtaa      240
aataataaag ttaaccagaa ttatccatgg ggaacaattc caattaaaat aaaatgccag      300
tatctggtaa aacctggtag taatgctttt tgtggtgata tccaggtaat gattagatgc      360
agtaaacccg ggtagtaggg aagaagagag atgtggggac aagcagcccg aataccttgc      420
tggcatagca gctgcctacc tgcacccgga gacctgagca gatattacta gggtatttat      480
ttgacagcca gcttagcagt cangaaggac an                                   512
```

45

<210> 108
<211> 596
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 108
```
ctctctggaa gggacattcc atctccatgg tgcactctga ggggcactgt caactagaga      60
ttggcccccat ccaggtggga ggaacccctt tggatggtga gtatccaatc tgctgtgcat     120
ttgacaggat ctctgaatgg ctaggtaatg gatcccaagc aggctcacaa atttaaatga     180
gggctttgtg tgcagaaaga ggaataagta cagattattt tcctaccact agatttttgg     240
ggagagtcac catggaatgt tgacaattac ttaaaatatt ttaagctccc ttgctgaatt     300
cctgtcctgt ccctgaggaa tcagatggtc atacagccat agnacccacc cgaaatttcc     360
ctaggagttg gagtaatgct agaattgaag accttctgag taaagggctt ctctgccttc     420
tcagaggcag gagaatttgc actggttgtg ttaaatgtat aaaaagctat atgttcacca     480
gtttactcat ttccaatgtg tagatgaata aaatgtagtg tacaaattat ttgaaaatcc     540
cagaaggaag gtacttttca aatacagtat ttttttttaca ataacttacg attttt       596
```

<210> 109
<211> 1023
<212> DNA
<213> Homo sapiens

<400> 109
```
tcccagacgc tgcccatgga ggcgtccagc gagccgccgc tggatgctaa gtccgatgtc      60
accaaccagc ttgtagattt tcagtggaaa ctgggtatgg ctgtgagctc agacacttgc     120
agatctctta agtatcctta cgttgcactg atgctaaaag tggcacatca ttcaggccaa     180
cgtaaagacc aagtgctttg aaatgacgat tccacagttt cagaatttct acagacagtt     240
caaggaaatt gctgcagtta ttgaaacggt gtgaagacgg gttctttggt tgataaattg     300
cgatcattct aaagtcatgg acttcacttt cgggaacaaa acctaataag gatggaacaa     360
ttattgaatg acaaatgccc tttggttttc ccttgtttta aaataataag aatctgggcc     420
aaccgggtga atctgatgga aacaaggtct ttagataagc ggcccgaagc ttatcccctt     480
aggtgcgggt aaattttacc ttgggacttg ccgcgcggtgt tacaacgcgg gtggcctgtg     540
gaaactctgt gcggttcgcc cacattaatc gcccctttgag ggcgattccc gccgttgtcc     600
acgcggggcg atatgtcgcg acaaggcccg gaccgtgttg ccgtgtccac agatggggcc     660
ccccgaagtc gcgcttggag cgtccccctt tgggcgcgtt tgacgcgcgt ggggtttgtg     720
ggtatgcgcg ggagccgggg aaccttgtag tgcgctgtcc cgggggttta gggtgtcgcc     780
gcctttcgcg gtttccgggg tctcccgaag tgtattaggg gcccctggcg cccagagagt     840
gtttgccgcc ccacatatgt ttggggggcgc tgtgtgcccc ccgagggagc tcttcgggag     900
cggcggtata tgtcctttga aacaccgctc tcttttttgc cgcgccgcag gagtgtatag     960
gaggagttgt gcgcgtggct tacgtcacca aagtggttgt ttctgagagc cgtccggcct    1020
agg                                                                 1023
```

<210> 110
<211> 422
<212> DNA

<213> Homo sapiens

<400> 110
```
gggagcgtgg ccagccgctt gccgatcgcc atcagggact tgatgaattc tctctcagga    60
gccagtcgaa caggctcatc ctcattctcc actttagggt tgctggctgt tcgtttcagg   120
ttgctgctga gacttatgct ggcagtggca tctgacttag agcgctggtg agtccttttg   180
gagggagaca gccctgtgtc aggggccggg ctcaaggagg gcagctccct cttcctgtga   240
gctggcttta ctcatctgag aggatcagct tccgtagctt ggtcccacgg gagtgtcgtt   300
gagtggaaat gtgcatgtct gaagaatagg ccccaagcaa cagggcacac tggagggaaa   360
agttaatgct ctggcggcaa cggtggacta tgtagggctt aatggcatca cccacgtcct   420
ca                                                                 422
```

<210> 111
<211> 263
<212> DNA
<213> Homo sapiens

<400> 111
```
aggatgtcta agctaatccc gtcacagaaa ggaaacgcac aggcgcctag gcagaaactt    60
ggagactcac cgcagaggcc acgtgaaccc acggccacag agaggcagga cggcagagcc   120
atgatttccc accgagcgat tacgagaacc tcttcccccca atagtagaca catctccaat  180
acaaacacag gtttataata agtaatagga agtcaatata atatagatta tccccagaaa   240
aaaatcaaca atcttcaaac act                                          263
```

<210> 112
<211> 461
<212> DNA
<213> Homo sapiens

<400> 112
```
aattttacat aagggacttg agaagcatgg attttggtag ccacaggggt cctggaacca    60
atccctcaca gacacagacg gacactttac agtagatgaa cacaaagatg aaaggaaaag   120
tctgacctag gtctgcgggg agaagtggaa ctccattttt gacaggtgat gccatttttt   180
gttttggaca tcgtccctct gtagttcttt ccattcccag tcttgcactc tgaaagatac   240
actgaaggaa agtccacaca gtggtcaaag tctttcacaa gacaccacgt gaaggtctgc   300
acagcacagt cacattgaga aaaagatctc atgcaccaga cccctgtttt ctgctttcta   360
aaagatcatc ttttgcacct gcaaaaaggc tgcagtaaac tgggccattc catactttga   420
ttcatgtatt caatgctact tatgagctct ctgtgtattg a                      461
```

<210> 113
<211> 446
<212> DNA
<213> Homo sapiens

<400> 113
```
ggcagcaggg aggcctgggt gcgaacgatg ttggcttggc cttcacggtc ctggagggag    60
gtgaggctgg ccttggaagg gtgccctgga gaggtcttgg gtgaaaactt gaccttgaag   120
aaaccaatca caaaagcggc gttgggtcag ggctaggctt agaggtgaag catcaacatg   180
gaaccatctc aggaagccgc atcgcctctt ccgaggtcct cacttccagg agcctgtcct   240
tgcaagatgc aatcatcgtt cctgcttttt cattgtcatt aaattctgta gaaacccatt   300
gtcattagct ccaagtgtaa atttgggtca aggagacaga ataataatgg gaatctcgga   360
```

```
gttcgacacc atagtgacgt tcagcgtcct ctgaattgtg ctacatcagc gaacaagtcg       420
gcgcttgaat tggattttga ggttat                                            446
```

<210>   114
<211>   6336
<212>   DNA
<213>   Homo sapiens

<400>   114
```
cgccgctcag gccctggagc ggacggttcc tactgcggct gggcaccggc tccgctcccg        60
cgtctgcccg cgctccagct gcgcctggcc cggccccggc ccggctcggc gtggccccgg       120
cctccaagcg aaggcgccgc tgccgctggg ccgctcccag ggccatgagg aagcggcggc       180
agccactgcg gcccgcgtca aggacttctc cagacaggtt atgttacctg cagaggctgc       240
cctgaagctc cctgtggcct ggagactatg tacaagagga atggtctgat ggctagcgtg       300
ttggtcacct ctgccactcc acagggcagc agcagctcgg actctctgga gggccagagc       360
tgcgactatg ccagcaagag ctatgatgcc gttgtcttcg atgtcttgaa agtgacccca       420
gaggagtttg ctagccagat tacattaatg gatatacctg tgtttaaagc tatccagccg       480
gaggaactag ccagctgtgg atggagtaag aaggagaaac acagtcttgc ccctaacgtt       540
gtggccttta cccggaggtt taaccaggtc agttttgggg ttgtacgaga aattctaaca       600
gcacagactt taaaaataag ggcagaaatc ctcagccatt ttgtgaaaat agccaagaaa       660
cttctagaac tcaacaacct tcattctctc atgtctgtgg tatcagcatt acaaagtgct       720
cccatcttca ggctgacaaa aacctgggct cttttaaatc gaaaagacaa gactaccttt       780
gagaaattgg actacctgat gtcgaaagaa gataattaca agcggacacg gaatatatc        840
cgaagcctga agatggttcc aagtattccc tatctaggaa tctatcttct ggatttaatc       900
tacattgatt ctgcatatcc tgcctcaggc agtatcatgg aaaatgaaca aagatccaat       960
cagatgaaca atattcttcg aataattgct gatttacaag tttcctgcag ctatgatcac      1020
ctcaccaccc tgccccatgt gcagaagtac ctgaagtccg tacgctacat tgaagagctc      1080
cagaagtttg tggaagacga caactacaaa ctgtcgctca gaatcgaacc aggaagcagc      1140
tctccaagac tagtctcttc caaggaagat cttgcaggtc cctctgctgg ctccggttct      1200
gcgaggttca gccggaggcc cacctgtcct gacacatctg ttgctggcag cctccccaca      1260
cctccagtcc ccagacacag gaagagccac agcctaggca caatatgat gtgtcagttg       1320
agtgtagttg agagtaaaag tgcgacattc ccatcggaga aagcaaggca cctactggac      1380
gacagtgtcc tagagtcccg cagcccccga aggggcctgg ctctgacctc ctcctctgct      1440
gtcaccaatg gactctccct aggcagtagt gagagctcag agtttagtga agagatgtct      1500
tcagggctgg aaagccccac cggcccgtgc atctgttctc tggggaactc cgcagctgtg      1560
cccaccatgg aggggcctct gagaagaaaa accctgctca aggaagggcg gaagcctgcg      1620
ctgtcctcgt ggaccaggta ctgggtcata ctctcaggat ccaccctcct gtactacgga      1680
gccaagtcct tgcggggcac agacagaaaa cactataaat ccacacctgg caaaaaggtt      1740
tccatcgtgg ctggatggtg cagctgccc gatgacccc agcacccaga tatcttccag       1800
ctgaacaacc ctgacaaagg caatgtttac aagtttcaga ctggttcccg atttcatgca      1860
atactgtggc acaagcattt ggatgatgca tgtaaaagca cacggcctca ggtacctgca      1920
aaccttatgt catttgagta agtctctgca ggacgtggca tgacttcaga ggcttctggg      1980
aacccaggct gggcctggtg gtgaagagca gtcctgggca caggctgtga gccagggtgc      2040
tgggaaactc acagctggac tcaggggaca cggcctgtgg cctcaccatc ccagagggct      2100
tcaccagtgt gggatccacc tgtcagtccc cagcgactct catgacactc attctgcagc      2160
accgcctctt ggggcagtgg tcagacccca cacgccctct ctgggcccac cacctgcatc      2220
tgcgactaga gagcacccgg cccacgttgg gttctcagtg ctttctactg cacagagtgg      2280
acagcgctaa ctaacctgtg agaggggccc gagagaagga acagctgtgg aacaggcttt      2340
ttacacccca agtgcatggg gttgctcgcc cacagggctg cctcagattt tgtacaaccc      2400
```

48

```
cgaagcgtcc tctgcgtgtg cgtgctgtac gtgtgtgtgt gtgtgtgagc gagtgtgaac    2460
tcttcaagaa acatgcattt tggcacaaga ctcgtgacat cacacacttc attcgctttg    2520
aggccctgct ttaaccttaa gttatagccc tgtccaccga ggaaggtcag ggtgagagcc    2580
tagattcctc ctgtgtcaag ggtccctcgc attcttttac tgtaaacaaa caatgcctta    2640
aattgtgtct tgttttctgt tcctatgggt gctattcatc tggaaggcct gcttccaggc    2700
ctctttgctg tcagcccttc tgagacagga cctggcttca ggactgtgga ctgggctgct    2760
ggcctgcttg cttcctccct tccccattcc tagcagggcc tgaggccctc ctcttctcgc    2820
ccttcccacc atgccagaat gggaagttgt gacgttgcag ctccaaccga cgtgctcata    2880
gtgatcagct gtgcaggagc catgaggcac caacctctcc ccgcagggca aagcctgtgc    2940
ccccatcatc tcactccttt gcctgcactg ccagggtggg gcccaccaag attcctgatc    3000
atgacgggaa gctgagtgac cctgaggcct taagcttccc cagtcttggc cccaaatgca    3060
gtcaccagca agtttttccat tttccaagtc caagggcaca attgttgatg accgtgtgac    3120
aatagagcga agccccgggg agtgaacggt ccaacctctg cattcagtta ggagctcttc    3180
acatgaatca catccttatc tgtcaccttg tgtcacattt taaagtgact tttattttgc    3240
acaaataatt tttattcaga ataataaatc actctttatc atagtatctt ctcttccctc    3300
ttccccttta gtttggatag cctaactctg agaagttaac ccttaaacag ttttctggaa    3360
gagactgaat ttctgggtcc ttgcagctgt gatggtttca gagctcagac tgatcaggca    3420
tcaagctacc ctcaagagtt tctgggctgg atgtttcaga acaacatcta caccagtaaa    3480
gtgtaatagg tcagtttcaa aacgaccaaa agacccacca ctgtattttg accaaataat    3540
gacaacttct ttagaaattt gaatggcttg gtgaggaaag tagttgtcac cagggcctca    3600
ttttgtagtt gagccttaca atgcttagta gttcatcttc tttttgagca aagactagaa    3660
tactttcctc ctaagagaaa ctcccaggtg ataaaagttg atgccatcaa accttgacac    3720
cgggtgctct gcacacccac gcggatgttg cacctcattc tcccgatgac tattcaaatc    3780
agcatctaga ggctgaatga caatgccaaa cactccacct ctgatcagaa ccatgcagtg    3840
ttaacacttt aacctacatt gaatctgatt ctacctgtta acttttaaaa agtcgtaagt    3900
ttggatgaaa gtgcaagatg tggaacatca actacctatt ttccttgggt ttttccactc    3960
tgcaaactgt cctggttttt cacaccaatg aagtattata gatgccaatc caaaacctca    4020
gaatttcagg caccacaaaa acaggtaatt ttctatccct tataagtttg tcttttcttt    4080
cagaaacatc tcttagccta atttgaaata gcacaatcac aattcaaaat gtttagtctt    4140
ctcactaatt gagtctgctt ccacgtcctc tcccaggaac attcttagct cggactcttg    4200
aagaatctct ttagattttg ttggcaaaag ccttatagaa gcagtaagag gcttgaccac    4260
gccggaagag tcctggagct aaagctggaa gacactcagc tctctaagca ggggctcggc    4320
caaacatggg agttaagtgc tgcttgtctt cccagtgttg gtttgaaccc tgtgagcctg    4380
agacagagag ggccaggcac caaccacaag gcgggaaagt ccatgggtag accctcccce    4440
tggagggaag catttctagt ttttgctcct tgactgtcca gagtgtacaa atgttcataa    4500
cgccattgaa gggattattt cttgcatgca tatgctgaat ttttttaagc aaatggatca    4560
tggcacccca aaatgaaagt tatagaaagc tgtctacaac tgtggagttg gtagctggta    4620
acattgttgt ctcaagaaca actcacctct ctccctagga ctaatttttg tctctctcag    4680
ttgaacatgt tttgtcattc aagatcagtc aggtgcattc tggcaactga catacttgat    4740
ggaggattga ttcggtagag agcagtagaa atcttgttct aactgtgcct ggtgagagac    4800
tttggccccc tccctcccta taaggctgtg gaacctgagg aagtagatac ttgaagagat    4860
tctgtttagg aagaaactca ctctcttttg ccagttgaat ttatagagca ttttttttct    4920
taccaagatg gccagtatca tttttacccccc acctcccaag ccccaagagg tgtacctttt    4980
cagatgccat tttacaggcg gaaatgctcc atgaaacagg aagccacttg caagcaacat    5040
ctgctctgtt cctcaggtgg ggcccagagc ccttccccga gactgctgat gtctgtaacc    5100
actggggagc actgccaaaa atacagcttt ctggtttgtg agcccataaa tgacttaaat    5160
cagctttaca tcattttttac atatcaagtg gtttcatgtt aaaaaacaaa ctcctagtcc    5220
```

49

```
tttagaaata acagattctc tgcacaaaac cacccattca ttcatttatt cattcacagc    5280
actagcaagt gctgcctatg ctgagaacaa gtcagatctg atccctgccc tcatggacct    5340
gaccactcaa caaacagtcc ccaccacacc tatctcctta ggcaagactt tgcctctctc    5400
ctagtcctga gtataaatcc tgtgcataga ttcctctaga aaggcatcaa aaggctcaac    5460
agactgaatg gcctcttggt ctgcgaaaat tcagttgcaa tgaggatgaa gtcactatcc    5520
tagaggctgc ttggcccaga agagccaggc acagagctgc agttgggcac gccaaggatt    5580
ccaaaggtgg aatgagagag tagggtcaaa ctgtcacagt atctgctcca taggtttctg    5640
tttttaattt caatgttaaa tacaactaca atatgagcga gaactgcatt ttcttgggtg    5700
ttgagaactt gtaccatgga cttcagaccg ccttgcagcc gtatgctgca caagcgtgta    5760
cacccctgg gcagcctcaa aaccccgctt acagcagcaa cacaggagat catctgtcca    5820
ttttagaacc attaatctct ttatccattg ctgaacgact gtgactattc agtaacgaag    5880
taatagtaat taattagtat ggtataatct ttaataaatt tcgtgccaaa atgcatggtt    5940
ttccacttag cattcaaaat gttgcataga gagtagtttt caatttctta tgtactcttc    6000
aaagtaagtt gaaaatcagt ttctacattt taattcgttt cctgttaaat ctgttgcact    6060
ctcctgggct gtctttttct ccagcagacc cctgcatgca gttgtgtaag gactttctct    6120
aattcttgtg aatcgtctca cccgcagtaa ccactgaacg tcaatcagcc ctccatgggg    6180
ttctttcgat ttttggtgaa gtattttgtt acctcagtct tgtatcaagt tgctgtattt    6240
ttcagcttgt tacattgata ataattattt cactaattaa atactttaat gtacaaacat    6300
ctttgtttac tttgaaatta aatgtgtttt ccaatg                              6336

<210>   115
<211>   2116
<212>   DNA
<213>   Homo sapiens


<400>   115
ggctccttac ccacccggag acttttttt gaaaggaaac tagggaggga gggagaggga      60
gagagggaga aaacgaaggg gagctcgtcc atccattgaa gcacagttca ctatgatctt    120
actcacattc agcactggaa gacggttgga tttcgtgcat cattcggggg tgttttctt     180
gcaaaccttg ctttggattt tatgtgctac agtctgcgga acggagcagt atttcaatgt    240
ggaggtttgg ttacaaaagt acggctacct tccaccgact gaccccagaa tgtcagtgct    300
gcgctctgca gagaccatgc agtctgccct agctgccatg cagcagttct atggcattaa    360
catgacagga aaagtggaca gaaacacaat tgactggatg aagaagcccc gatgcggtgt    420
acctgaccag acaagaggta gctccaaatt tcatattcgt cgaaagcgat atgcattgac    480
aggacagaaa tggcagcaca agcacatcac ttacagtata aagaacgtaa ctccaaaagt    540
aggagaccct gagactcgta aagctattcg ccgtgccttt gatgtgtggc agaatgtaac    600
tcctctgaca tttgaagaag ttccctacag tgaattagaa aatggcaaac gtgatgtgga    660
tataaccatt atttttgcat ctggtttcca tggggacagc tctccctttg atggagaggg    720
aggattttg gcacatgcct acttccctgg accaggaatt ggaggagata cccatttga     780
ctcagatgag ccatggacac taggaaatcc taatcatgat ggaaatgact tatttcttgt    840
agcagtccat gaactgggac atgctctggg attggagcat tccaatgacc ccactgccat    900
catggctcca ttttaccagt acatggaaac agacaacttc aaactaccta atgatgattt    960
acagggcatc cagaaaatat atggtccacc tgacaagatt cctccaccta caagacctct   1020
accgacagtg cccccacacc gctctattcc tccggctgac ccaaggaaaa atgacaggcc   1080
aaaacctcct cggcctccaa ccggcagacc ctcctatccc ggagccaaac ccaacatctg   1140
tgatgggaac tttaacactc tagctattct tcgtcgtgag atgtttgttt tcaaggacca   1200
gtggttttgg cgagtgagaa acaacagggt gatggatgga tacccaatgc aaattactta   1260
cttctggcgg ggcttgcctc ctagtatcga tgcagtttat gaaaatagcg acgggaattt   1320
tgtgttcttt aaaggtaaca atattgggt gttcaaggat acaactcttc aacctggtta   1380
```

50

```
ccctcatgac ttgataaccc ttggaagtgg aattcccct catggtattg attcagccat    1440
ttggtgggag gacgtcggga aaacctattt cttcaaggga gacagatatt ggagatatag    1500
tgaagaaatg aaaacaatgg accctggcta tcccaagcca atcacagtct ggaaagggat    1560
ccctgaatct cctcagggag catttgtaca caaagaaaat ggctttacgt atttctacaa    1620
aggaaaggag tattggaaat tcaacaacca gatactcaag gtagaacctg gacatccaag    1680
atccatcctc aaggatttta tgggctgtga tggaccaaca gacagagtta aagaaggaca    1740
cagcccacca gatgatgtag acattgtcat caaactggac aacacagcca gcactgtgaa    1800
agccatagct attgtcattc cctgcatctt ggccttatgc ctccttgtat tggtttacac    1860
tgtgttccag ttcaagagga aaggaacacc ccgccacata ctgtactgta aacgctctat    1920
gcaagagtgg gtgtgatgta gggttttttc ttctttcttt cttttgcagg agtttgtggt    1980
aacttgagat tcaagacaag agctgttatg ctgtttccta gctaggagca ggcttgtggc    2040
agcctgattc ggggctgacc tttcaaacca gagggttgct ggtcctgcac atgagtggaa    2100
atacactcat ggggaa                                                    2116

<210>   116
<211>   3233
<212>   DNA
<213>   Homo sapiens

<400>   116
tgcgactgag tcggtggcga agacgggaac gcgacgatgg cggagactct gcccgggtcg      60
ggcgactcgg gccctggcac ggcttctctc ggcccgggcg ttgcggagac tgggacgagg     120
cggctcagcg agctgcgggt gatcgatctg cgggcggagc tgaagaagcg gaacctggac     180
acgggcggca acaagagcgt cctgatggag cggctcaaga aggcggttaa agaagagggg     240
caagatcctg atgaaattgg catcgagtta gaagccacca gcaagaagtc agccaagaga     300
tgtgttaaag gactgaagat ggaggaggaa ggcacagaag ataatggcct ggaagacgat     360
tccagagacg ggcaggagga catggaagca agtctggaga acctgcagaa tatgggcatg     420
atggacatga gtgtgctaga cgaaactgaa gtggcgaata gcagtgctcc agattttggg     480
gaggatggca cggacggcct tctcgattcc ttttgtgata gtaaagaata cgtggctgca     540
cagctgagac agctcccggc tcagccccca gagcatgctg tggatggggga aggatttaag     600
aacactttgg aaacttcatc gttgaacttc aaagtaactc cggacattga gaatcccttt      660
ttggagccag aaaatgagaa aatactcgac attttggggg aaacttgtaa atctgagcca     720
gtaaaagaag aaagttccga gctggagcag ccatttgcac aggacacaag tagcgtgggg     780
ccagacagaa agcttgcgga ggaagaggac ctatttgaca cgcgcccatcc ggaagagggt     840
gatttagatt tggccagcga gtcaacagca cacgctcagt cgagcaaggc agacagcctg     900
ttagcggtag tgaaaaggga gcccgcggag cagccaggcg atggcgagag gacggactgt     960
gagcctgtag ggctagagcc ggcagttgag cagagtagtg cggcctccga gctcgcggag    1020
gcctctagcg aggagctcgc agaagcaccc acggaagccc caagcccaga gccagagat    1080
agcaaagaag acgggaggaa gtttgatttt gacgcttgta atgaagtccc tccggctcct    1140
aaagagtcct caaccagtga gggcgctgat cagaaaatga gctctttaa ggaagaaaaa    1200
gatataaagc caatcattaa agatgaaaaa ggtcgggtcg gcagcggttc tggtcggaac    1260
ctgtgggtca gcgggctgtc ctccacaaca cgcgctacgg atctcaagaa ccttttcagc    1320
aagtatggga aggttgtcgg ggccaaagtg gtaacgaacg cccgcagccc ggggggctcga    1380
tgctatggat tcgtcaccat gtcgacatct gacgaggcga ccaagtgcat cagccatctc    1440
cacagaactg agctgcatgg acgaatgatc tccgtagaga aggccaaaaa tgagcctgct    1500
gggaaaaagc tttccgacag aaaagagtgc gaagtgaaga aggaaaaaatt atcgagtgtc    1560
gacagacatc attctgtgga gatcaaaatt gaaaaaactg taattaagaa ggaagagaag    1620
attgagaaga aggaggaaaa aaaagcctgaa gacattaaga aggaagaaaa agaccaggat    1680
```

```
gagctgaaac ccggacctac aaatcggtct agagtcacca aatcaggaag cagaggaatg    1740
gagcggacgg tcgtgatgga taaatcgaaa ggagagcccg tcattagcgt gaaaaccaca    1800
agcaggtcca aagagagaag ctccaagagt caggatcgca agtcagaaag caaagaaaag    1860
agagacatct tgtcgtttga taaaatcaaa gaacaaaggg agagagagcg ccagaggcag    1920
cgggaacggg agatccgcga aacggagagg cggcgggagc gcgagcagcg ggagcgggag    1980
caacgcctcg aggccttcca tgagcggaag gagaaggccc ggctacagcg ggaacgcctg    2040
cagctcgagt gccagcgcca gcggctggag cgggagcgca tggagcggga gcggctggag    2100
cgcgagcgca tgcgcgtgga gcgtgagcgc aggaaggagc aggagcgcat ccaccgcgag    2160
cgcgaggagc tgcggcgcca gcaggagcag ctgcgttacg agcaggagcg gcggcccggg    2220
cggaggccct acgacctgga ccgacgagat gatgcctatt ggccagaagg aaagcgtgtg    2280
gcaatggagg accgatatcg tgcagacttt ccccggccag accaccgctt tcacgacttc    2340
gatcatcgag accgggccca gtaccaggac cacgccatcg acaggcggga gggttcgagg    2400
ccaatgatgg gagaccaccg ggatgggcag cactatggag atgaccgcca tggccacgga    2460
ggacccccag agcgccacgg ccgggactcc cgtgatggct ggggggggcta cggctccgac    2520
aagaggctga gtgaaggccg ggggctgccc cctcccccca ggggtggccg tgactgggga    2580
gagcacaacc agcggctaga ggagcaccag gcacgcgcct ggcagggtgc catggacgca    2640
ggcgcggcta gccgggagca cgccaggtgg caaggtggcg agaggggcct gtctgggccc    2700
tcggggccgg ggcacatggc aagccgcggt ggagtggcgg ggcgaggcgg ctttgcacaa    2760
ggtggacatt cccagggcca cgtggtgcca ggtggcggac tggaaggtgg cggagtggcc    2820
agccaggacc ggggcagcag agtccctcac ccacacccct atcccccccc gtacccccac    2880
ttcacccgcc gctactaagt cccactcgct gtgagttttc gggtgggcag acgcactgtt    2940
gaatctggta gccagggttc cctcgaactt gggggatctt tttaaaagca aagtaaatcc    3000
tgccaccatg ttgtagctca atacaatgtg aactcacttt tttttttttt tttaataaat    3060
gtgttcttgt tctgccattt ttaaatcaag gtttctgtta acgaggcatt ccattttcca    3120
ttaataaagt ttaccattcg caaaaaaaaa atgtgttctt gttctgccat ttttaaatca    3180
aggtttctgt taacgaggca ttccattttc cattaataaa gtttaccatt cgc           3233
```

<210> 117
<211> 1195
<212> DNA
<213> Homo sapiens

<400> 117
```
cgcgccggag cgggaccgac gggaccgagc gagcgaccga cgcgccaccc gccgacgcct     60
cagccgcttg gggcccgcac ggaccctcta cttcagtgta gaatgagcca aggagactca    120
aacccagcag ctattccgca tgcagcagaa gatattcaag gagatgaccg atggatgtct    180
cagcacaaca gatttgtttt ggactgtaaa gacaaagagc ctgatgtact gttcgtggga    240
gactccatgg tgcagttaat gcagcaatat gagatatggc gagagctttt ttccccactt    300
catgcactga attttggaat tgggggagat acaacaagac atgttttgtg gagactaaag    360
aatggagaac tggagaatat taagcctaag gtcattgttg tctgggtagg aacaaataac    420
cacgaaaata cagcagaaga agtagcaggt gggatcgagg ccattgtaca acttatcaac    480
acaaggcagc cacaggccaa aatcattgta ttgggtttgt tacctcgagg tgagaaaccc    540
aatcctttga ggcaaaagaa cgccaaggtg aaccaactcc tcaaggtttc gctgccgaag    600
cttgccaacg tgcagctcct ggataccgac ggggtttttg tgcactcgga cggtgccatc    660
tcctgccacg acatgtttga ttttctgcat ctgacaggag ggggctatgc aaagatctgc    720
aaacccctgc atgaactgat catgcagttg ttggaggaaa cacctgagga gaaacaaacc    780
accattgcct gactggctct tatcagtgtt aatagcatct cagcttcctc agatcagttc    840
tatcactggc actacagaat ccttctcttt cttaaggcac tttgcattgt agaatgttcc    900
tggatgttca tatctagtgt ttgaagggga ggagggattt aaactggtcc tgtacataga    960
```

52

```
aggtttgttt gacagaggag aaaaattagc caaggaagat tgttgtttaa attcatttga    1020
aaccagaagg ggacttttta gttgtatgtg taacacattc attgaattat tatcactgtt    1080
ttcttgggac aacatcaagc ctaaatactg aacaatatga agattctttt cttggccttt    1140
ctgtggatta tgtcatatat aataattatc agaatcattc tacttggctt tttcc         1195
```

<210> 118
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 118
```
ttcagtggag tcccgctacc ggcccaacat catcctctat tcagtagggt cgtgtctgng      60
cttcctgggg ggtacggtgt ggtccgccga ctgctgcgag accaccttca tcgaggaccg     120
gtcgcccacc aaagacagcc tcgagtaccc ggatgggaag ttcattgacc tctcagctga     180
tgacataaaa atccacaccc tgtcctacga tgtggaggag gaggaggagt ccaggagct      240
ggagagcgac tactcaagcg acacagagag tgaggacaat ttcctcatga tgccccccgcg     300
ggaccacctg ggctnagtgt ctttncatgn ttttctgctt ctngcctttg ggatngagcc     360
ttntacttnt ccatgaggta cctgattcgc aaantttgcc tggggttcct t              411
```

<210> 119
<211> 2754
<212> DNA
<213> Homo sapiens

<400> 119
```
gaattccgcc agccccgcca gtccccgcgc agtccccgcg cagtcccagc gccaccgggc      60
agcagcggcg ccgtgctcgc tccagggcgc aaccatgtcg ccatttcttc ggattggctt     120
gtccaacttt gactgcgggt cctgccagtc ttgtcagggc gaggctgtta accccttactg    180
tgctgtgctc gtcaaagagt atgtcgaatc agagaacggg cagatgtata tccagaaaaa     240
gcctaccatg tacccacccт gggacagcac tttttgatgcc catatcaaca agggaagagt     300
catgcagatc attgtgaaag gcaaaaacgt ggacctcatc tctgaaacca ccgtggagct     360
ctactcgctg gctgagaggt gcaggaagaa caacgggaag acagaaatat ggttagagct     420
gaaacctcaa ggccgaatgc taatgaatgc aagatacttt ctggaaatga gtgacacaaa    480
ggacatgaat gaatttgaga cggaaggctt ctttgctttg catcagcgcc ggggtgccat     540
caagcaggca aaggtccacc acgtcaagtg ccacgagttc actgccacct tcttcccaca     600
gcccacattt tgctctgtct gccacgagtt tgtctggggc ctgaacaaac agggctacca    660
gtgccgacaa tgcaatgcag caattcacaa gaagtgtatt gataaagtta tagcaaagtg    720
cacaggatca gctatcaata gccgagaaac catgttccac aaggagagat tcaaaattga     780
catgccacac agatttaaag tctacaatta caagagcccg accttctgtg aacactgtgg     840
gaccctgctg tggggactgg cacggcaagg actcaagtgt gatgcatgtg gcatgaatgt     900
gcatcataga tgccagacaa aggtggccaa cctttgtggc ataaaccaga gctaatggc      960
tgaagcgctg gccatgattg agagcactca acaggctcgc tgcttaagag atactgaaca    1020
gatcttcaga gaaggtccgg ttgaaattgg tctcccatgc tccatcaaaa atgaagcaag    1080
gctgccatgt ttaccgacac cgggaaaaag agagcctcag ggcatttcct gggagtctcc    1140
gttggatgag gtggataaaa tgtgccatct tccagaacct gaactgaaca aagaaagacc    1200
```

53

```
atctctgcag attaaactaa aaattgagga ttttatcttg cacaaaatgt tggggaaagg     1260
aagttttggc aaggtcttcc tggcagaatt caagaaaacc aatcaatttt tcgcaataaa     1320
ggccttaaag aaagatgtgg tcttgatgga cgatgatgtt gagtgcacga tggtagagaa     1380
gagagttctt tccttggcct gggagcatcc gtttctgacg cacatgtttt gtacatttca     1440
gaccaaggaa aacctctttt ttgtgatgga gtacctcaac ggaggggact taatgtacca     1500
catccaaagc tgccacaagt tcgacctttc cagagcgacg ttttatgctg ctgaaatcat     1560
tcttggtctg cagttccttc attccaaagg aatagtctac agggacctga agctagataa     1620
catcctgtta gacaaagatg gacatatcaa gatcgcggat tttggaatgt gcaaggagaa     1680
catgttagga gatgccaaga cgaatacctt ctgtgggaca cctgactaca tcgccccaga     1740
gatcttgctg ggtcagaaat acaaccactc tgtggactgg tggtccttcg gggttctcct     1800
ttatgaaatg ctgattggtc agtcgccttt ccacgggcag gatgaggagg agctcttcca     1860
ctccatccgc atggacaatc ccttttaccc acggtggctg gagaaggaag caaaggacct     1920
tctggtgaag ctcttcgtgc gagaacctga gaagaggctg ggcgtgaggg gagacatccg     1980
ccagcaccct ttgtttcggg agatcaactg ggaggaactt gaacggaagg agattgaccc     2040
accgttccgg ccgaaagtga atcaccatt tgactgcagc aatttcgaca aagaattctt     2100
aaacgagaag cccccggctgt catttgccga cagagcactg atcaacagca tggaccagaa     2160
tatgttcagg aacttttcct tcatgaaccc ccggatggag cggctgatat cctgaatctt     2220
gcccctccag agacaggaaa gaatttgcct tgtccctggg aactggttca agagacactg     2280
cttgggttcc tttttcaact tggaaaaaga aagaaacact caacaataaa gactgagacc     2340
cgttcgcccc catgtgactt ttatctgtag cagaaaccaa gtctacttca ctaatgacga     2400
tgccgtgtgt ctcgtctcct gacatgtctc acagacgctc ctgaagttag gtcattacta     2460
accatagtta tttacttgaa agatgggtct ccgcacttgg aaaggtttca agacttgata     2520
ctgcaataaa ttatggctct tcacctgggc gccaactgct gatcaacgaa atgcttgttg     2580
aatcaggggc aaacgagta cagacgtctc aagactgaaa cggccccatt gcctggtcta     2640
gtagcggatc tcactcagcc gcagacaagt aatcactaac ccgtttatt ctattcctat     2700
ctgtggatgg gtaaatgctg ggggccagcc ctggataggt ttttatggga attc          2754

<210>    120
<211>    2454
<212>    DNA
<213>    Homo sapiens

<400>    120
ggaataggtt agtttcagac aagcctgctt gccggagctc agcagacacc aggccttccg       60
ggcaggcctg gcccaccgtg ggcctcagag ctgctgctgg ggcattcaga accggctctc      120
cattggcatt gggaccagag accccgcaag tggcctgttt gcctggacat ccacctgtac      180
gtccccaggt ttcgggaggc ccaggggcga tgccagaccc cgcggcgcac ctgcccttct      240
tctacggcag catctcgcgt gccgaggccg aggagcacct gaagctggcg ggcatggcgg      300
acgggctctt cctgctgcgc cagtgcctgc gctcgctggg cggctatgtg ctgtcgctcg      360
tgcacgatgt gcgcttccac cactttccca tcgagcgcca gctcaacggc acctacgcca      420
ttgccggcgg caaagcgcac tgtggaccgg cagagctctg cgagttctac tcgcgcgacc      480
ccgacgggct gccctgcaac ctgcgcaagc cgtgcaaccg gccgtcgggc ctcgagccgc      540
agccggggt cttcgactgc ctgcgagacg ccatggtgcg tgactacgtg cgccagacgt      600
ggaagctgga gggcgaggcc ctggagcagg ccatcatcag ccaggccccg caggtggaga      660
agctcattgc tacgacggcc cacgagcgga tgccctggta ccacagcagc ctgacgcgtg      720
aggaggccga gcgcaaactt tactctgggg cgcagaccga cggcaagttc ctgctgaggc      780
cgcggaagga gcagggcaca tacgccctgt ccctcatcta tgggaagacg gtgtaccact      840
acctcatcag ccaagacaag gcgggcaagt actgcattcc cgagggcacc aagtttgaca      900
cgctctggca gctggtggag tatctgaagc tgaaggcgga cgggctcatc tactgcctga      960
```

54

```
aggaggcctg ccccaacagc agtgccagca acgcctcagg ggctgctgct cccacactcc    1020
cagcccaccc atccacgttg actcatcctc agagacgaat cgacaccctc aactcagatg    1080
gatacacccc tgagccagca cgcataacgt ccccagacaa accgcggccg atgcccatgg    1140
acacgagcgt gtatgagagc ccctacagcg acccagagga gctcaaggac aagaagctct    1200
tcctgaagcg cgataacctc ctcatagctg acattgaact tggctgcggc aactttggct    1260
cagtgcgcca gggcgtgtac cgcatgcgca agaagcagat cgacgtggcc atcaaggtgc    1320
tgaagcaggg cacggagaag gcagacacgg aagagatgat gcgcgaggcg cagatcatgc    1380
accagctgga caacccctac atcgtgcggc tcattggcgt ctgccaggcc gaggccctca    1440
tgctggtcat ggagatggct gggggcgggc cgctgcacaa gttcctggtc ggcaagaggg    1500
aggagatccc tgtgagcaat gtggccgagc tgctgcacca ggtgtccatg gggatgaagt    1560
acctggagga gaagaacttt gtgcaccgtg acctggcggc ccgcaacgtc ctgctggtta    1620
accggcacta cgccaagatc agcgactttg gcctctccaa agcactgggt gccgacgaca    1680
gctactacac tgcccgctca gcagggaagt ggccgctcaa gtggtacgca cccgaatgca    1740
tcaacttccg caagttctcc agccgcagcg atgtctggag ctatggggtc accatgtggg    1800
aggccttgtc ctacggccag aagccctaca agaagatgaa agggccggag gtcatggcct    1860
tcatcgagca gggcaagcgg atggagtgcc caccagagtg tccacccgaa ctgtacgcac    1920
tcatgagtga ctgctggatc tacaagtggg aggatcgccc cgacttcctg accgtggagc    1980
agcgcatgcg agcctgttac tacagcctgg ccagcaaggt ggaagggccc ccaggcagca    2040
cacagaaggc tgaggctgcc tgtgcctgag ctcccgctgc ccaggggagc cctccacgcc    2100
ggctcttccc caccctcagc cccaccccag gtcctgcagt ctggctgagc cctgcttggt    2160
tgtctccaca cacagctggg ctgtggtagg gggtgtctca ggccacaccg gccttgcatt    2220
gcctgcctgg cccccctgtcc tctctggctg gggagcaggg aggtccggga gggtgcggct    2280
gtgcagcctg tcctgggctg gtggctcccg gagggccctg agctgagggc attgcttaca    2340
cggatgcctt cccctgggcc ctgacattgg agcctgggca tcctcaggtg gtcaggcgta    2400
gatcaccaga ataaacccag cttccctctt gaaaaaaaaa aaaaaaaaaa aacc          2454
```

<210> 121
<211> 922
<212> DNA
<213> Homo sapiens

<400> 121
```
ccggctgcgg cgatggaacc agcggacgag ccgagcgagt tagtgtcagc cgagggccga      60
aaccggaagg cggtgctgtg ccagcgttgc ggctcccggg tgctgcagcc agggaccgct     120
ctcttctctc gccgacagct tttccttccc tccatgagaa agaagccagc tctgtctgac     180
ggcagcaatc ctgacggcga tctcctccag gaacactggc tggttgagga catgttcatt     240
tttgagaatg tgggcttcac caaggacgtg ggcaacatca agtttctggt ctgcgcagac     300
tgtgaaattg gaccaattgg ctggcattgc ctagatgaca gaacagtttt ctatgtggcc     360
ttggaacgag tttcccatga gtaactgagg ggaggggtac tcagctccat ctccaaagat     420
aaacctactc cccacaagaa ctggccttta atgtggtata actgttccgc tgccttcttg     480
tctgtgtgct aatataaata ctgagtacca gcatgtccat ttgaacatgc aaagggttaa     540
tcctgcttcc taaagcctca agtacatgcc tcctgcttag ttcactttgt atcacatttc     600
ctaagctccc ttttcccca gttttgggac actgtgctta cctccaaaaa tctcatctct     660
tccctggcat tctcccctagg ctctgttttg cccagggctc ccgcttttttc ttgctctaga     720
ggagcagtat tcaacctttt agctatgatg acacataaca aaagatgttt atgtactaat     780
agttgaaatc tgccttttttc tcattcaaga aggcatacaa atatctgaga gtgactttgt     840
tgtatggcta cccttgtgat ctacagtaat ttattctttc taaaagtaaa gcattctcaa     900
aacaaaaaaa aaaaaaaaaa gg                                             922
```

55

<210> 122
<211> 1234
<212> DNA
<213> Homo sapiens

<400> 122
```
tagttcaaga caacagagac aaagctaaga tgaggaagtt ctgtacagtt taggaaatag    60
aggctttcaa agataattcg cagtgatgtg aaactggcct cccaagccct gataacaaca   120
tggccaacgc cctggccagc gccacttgcg agcgctgcaa gggcggcttt gcgcccgctg   180
agaagatcgt gaacagtaat ggggagctgt accatgagca gtgtttcgtg tgcgctcagt   240
gcttccagca gttcccagaa ggactcttct atgagtttga aggaagaaag tactgtgaac   300
atgactttca gatgctcttt gccccttgct gtcatcagtg tggtgaattc atcattggcc   360
gagttatcaa agccatgaat aacagctggc atccggagtg cttccgctgt gacctctgcc   420
aggaagttct ggcagatatc gggtttgtca agaatgctgg gagacacctg tgtcgcccct   480
gtcataatcg tgagaaagcc agaggccttg ggaaatacat ctgccagaaa tgccatgcta   540
tcatcgatga gcagcctctg atattcaaga acgaccccta ccatccagac catttcaact   600
gcgccaactg cgggaaggag ctgactgccg atgcacggga gctgaaaggg gagctatact   660
gcctcccatg ccatgataaa atggggggtcc ccatctgtgg tgcttgccga cggcccatcg   720
aagggcgcgt ggtgaacgct atgggcaagc agtggcatgt ggagcatttt gtttgtgcca   780
agtgtgagaa acccttttctt ggacatcgcc attatgagag gaaaggcctg gcatattgtg   840
aaactcacta taaccagcta tttggtgatg tttgcttcca ctgcaatcgt gttatagaag   900
gtgatgtggt ctctgctctt aataaggcct ggtgcgtgaa ctgctttgcc tgttctacct   960
gcaacactaa attaacactc aagaataagt ttgtggagtt tgacatgaag ccagtctgta  1020
agaagtgcta tgagatttcc attggagctg aagaaaagac ttaagaaact agctgagacc  1080
ttaggaagga aataagttcc tttatttttt cttttctatg caagataaga gattaccaac  1140
attacttgtc ttgatctacc catatttaaa gctatatctc aaagcagttg agagaagagg  1200
acctatatga atggttttat gtcattttt taaa                              1234
```

<210> 123
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 123
```
attgattaaa aggtgacctt tcttattgga ctgataagac aaaaatatag attccaaatc    60
tattgacata tgatatcaca tccacaaatg tttgcctatt tttgtagcat tattttggtt   120
gcaaagtctc ttagggaatg cacaaaaata atacaacctt aaaaatcaga ctagaagatg   180
gaatataagt ggtttccttg taattttttt ttaagcttgg agaggtaata acacatcttt   240
gaattcaaac tgaggactgc tgcttaatgg tgcttttaca gggtggttct aaaatttttg   300
agagtcaggt attgctttct ctgactgttt aattcaccac tggcacgtgt ttcctatcct   360
caagcataag tttaaaagat tacaaacctc atgctgctca gttttttctn tccagtaaat   420
cagatgcatg gtttctctag atttag                                       446
```

<210> 124
<211> 644
```

56

<212> DNA

<213> Homo sapiens


<220>

<221> misc_feature

<223> n=a,t,g or c


<400> 124
```
tggaagaatt gattttaacc ttttctatgc aaacacaatc tgaaaagtta tgtgctgcat   60
attgtgctca aaatgtttta tactctccac aagctgcaat taagagattc attcctattt   120
ttaaaattta gatccacatg ggttagagaa aaatactctc aaaagtgagt tcctagagaa   180
tattatccct ttgcctcaca gagattttaa cctgcattta agagtaagtg ttaggttgag   240
gcatatgata ttgtcgcttt tgcagatcag caatggttga acactggcaa tttcaatatg   300
gttcaacctt gcacatgact caagtgtaaa anaaggagaa accttcaagt attccttatt   360
tcttccaata gggggtacac ttttttttggt acagtggaga tccaacccaa agtacgcaag   420
cctcttctct cccctgatgg tgggtagcta caggcagtta cantcccttg gctgcctgtg   480
agaagcctac antttggcat tttcctcccn aaaattacca cggtngacca agtgaacatt   540
nccagnatat ngacctgggt aatgggggggg aaggggggagt tgagcaacng gtggaaatat   600
tttacnggga tttccaacat anggcagcct ttaagggaat ttta   644
```

<210> 125

<211> 523

<212> DNA

<213> Homo sapiens


<220>

<221> misc_feature

<223> n=a,t,g or c


<400> 125
```
gggggaaatt actttaaaaa agaaaaaaag aaagaaagaa aagcagaaag tggacatcga   60
ccagcacctg tgtacgtaca gtacaccttg cagccgaatg caaggttact tcatcctatg   120
gtaaaggtcg cccccagccc ggtagccaga gatgccactc tttctgccca gctaacacca   180
ttgtgcgcct gtgtgcgagt ggtgccagca taacctcaat cacaccaata ttgctgccac   240
cactgcttta ctggctccga ctgaacacag catagaagag tcaggagaga atgcacagct   300
gtacacccaa ttctgatgcc ccctcaatac tttcatcatg tttccatcat ctttcaggtc   360
ccatactctg agagttttgt ctcttgaagc tgacaccagg atcaagttcc atctggagca   420
aaagttaaat tctgaccact tcagtatgat taccaagtta aggaggagtt tctgtatatc   480
atcccatatt ttgatcgcca ttgttcaacc tgtancaaga gta   523
```

<210> 126

<211> 746

<212> DNA

<213> Homo sapiens


<220>

<221> misc_feature

<223> n=a,t,g or c


<400> 126

57

```
ttnnncggga gnaacacaac aagccgagtc cgccgcccct gcacaacaac aacaacaact        60
gcgaggaaaa tgagcagtct ctgcccccgc cggccggcct caacagttcc tgggtggaac       120
tacccatgaa cagcagcaat ggcaatgata atggcaatgg gaaaaatggg gggntggaac       180
acgtaccatc ctcatcctcc atccacaatg gagacatgga gaagattctt ttggatgcac       240
aacatgaatc aggacagagt agttccagag gcagttctca ctgtgacagc ccttcgccac       300
aagaagatgg gcagatcatg tttgatgtgg aaatgcacac cagcagggac catagctctc       360
agtcagaaga agaagttgta gaaggagagn aggaagtcga nggtttttgaa gaaaagtgcg       420
gactgggtnt cagactggtc cagtagaccc gaaacatcca ccccaaggag tcccacttca       480
ganaccctaa cgtcttgtgt tttttaggat gatggatcag tgtncgtgtn tnnnnnnnnn       540
nnnnnnnnnn nnnncnnccn nttttgtnnn tnnnnnnnnn ntnnnnnnnt ntnnntnnnn       600
tnnntnntnn nnnnnnccnn nntnnnnttt nnnnnnntnnc ntnntntnnt nnnnnnttnt       660
tnntntnnnt nttnntnnnn nnnntntncn nncttntntc tnnncnnnnn nnnnnntnnt       720
tncnnctnnt nnnnnnnnntn ntnnct                                           746
```

<210> 127
<211> 448
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 127
```
ctcagattcc tggacctggt gtcctggttg ggtccaaggt gattttacag aagaaaaaaa        60
caactcaagc attctggtgg caacatagag attgtaggct gcttctaaga aagttattaa       120
caatttggaa attcctaagt aggatgagag ttagtaactg gatacgagtg aagtttatat       180
ccaagttcag actcaaaggc attattatga tttgcttctt cccatgtctt ccatgtcctg       240
cttctcaaag ttttttctcat ccatcacact actgccttaa cctgctctga gtatgcattt      300
gttttcaatt catctttatt tcaatctgtt taacttttga atccgcatgg gaatacgcac       360
attaagttcc tttctaaaat aaggtttttat ggaagctnga gtgagtttca cgataagtgt      420
ccttgctatt ttttgagatg ttttatgg                                         448
```

<210> 128
<211> 1650
<212> DNA
<213> Homo sapiens

<400> 128
```
agcgagccgc cacggtatga ccccaggggc tctgctgatg ctgctggggg cgctggggcc        60
gccgctcgcc ccaggcgtcc gcggctcgga ggcggagggt cgactccggg agaaactttt       120
ctctggctat gatagctccg tgcggccagc gcgggaggtg ggagaccgtg tcagggtcag       180
cgttggtctc atcctggcgc aactcatcag cctgaacgag aaggatgaag agatgagcac       240
aaaggtgtac ttagacctgg agtggactga ctacaggctg agctgggacc ctgcggagca       300
cgacggcatc gattcgctcc gcatcacggc ggaatccgtg tggctccctg acgtggtgct       360
actgaacaac aatgatggga attttgacgt ggctctggac attagcgtcg tggtgtcctc       420
cgacggctcc gtgcgttggc aacccccggg catctatcgc agcagctgca gcatccaggt       480
cacctacttc cccttcgact ggcagaattg cactatggtg ttcagctcct acagctacga       540
cagctcggag gtcagcctgc agacaggcct gggtcctgac gggcaagggc atcaggaaat       600
ccacattcat gaagggactt tcattgagaa tggccagtgg gagaatatcc acaagccctc       660
```

```
tcggctaatc cagcctccag gcgatcctag gggagggagg gaaggacagc gccaggaagt    720
catcttctac ctcatcatcc gccgcaagcc tctcttctac ctggtcaacg tcattgcccc    780
atgcatcctc atcactcttc tggccatctt cgtcttctac ctgccaccag atgcaggaga    840
gaagatgggg ctctcaatct ttgccctgct gacccttact gtgttcctgc tgctgctggc    900
tgacaaagta cctgagacct cactatcagt acccattatt atcaagtacc tcatgtttac    960
catggtcctc gtcaccttct cagtcatcct tagtgtcgtg gttctcaacc tgcaccaccg   1020
ctcaccccac acccaccaaa tgccccttttg ggtccgtcag atcttcattc acaaacttcc   1080
gctgtacctg cgtctaaaaa ggcccaaacc cgagagagac ctgatgccgg agcccctca    1140
ctgttcttct ccaggaagtg gctggggtcg gggaacagat gaatatttca tccggaagcc   1200
gccaagtgat tttctcttcc ccaaacccaa taggttccag cctgaactgt ctgccctga    1260
tctgcggcga tttatcgatg gtccaaaccg ggctgtggcc ctgcttccgg agctacggga   1320
ggtcgtctcc tctatcagct acatcgctcg acagctgcag gaacaggagg accacgatgc   1380
gctgaaggag gactggcagt ttgtggccat ggtagtggac cgcctcttcc tgtggacttt   1440
catcatcttc accagcgttg ggaccctagt catcttcctg gacgccacgt accacttgcc   1500
ccctccagac cccttttcctt gaagactgga gggttgagac caggcccct gccagttgaa    1560
gtgagagagt ttggtgatac tgtcaagccc tatccttctc tgcctcttaa ctccttcacg   1620
aggaatctgg gcctcttatt cgttctggg                                    1650
```

<210>   129
<211>   983
<212>   DNA
<213>   Homo sapiens

<400>   129
```
cgcaggggtc ccccggccgc cgcgatgcag aaatacgaga aactggaaaa gattggggaa     60
ggcacctacg gaactgtgtt caaggccaaa aaccgggaga ctcatgagat cgtggctctg    120
aaacgggtga ggctggatga cgatgatgag ggtgtgccga gttccgccct ccgggagatc    180
tgcctactca aggagctgaa gcacaagaac atcgtcaggc ttcatgacgt cctgcacagc    240
gacaagaagc tgactttggt ttttgaattc tgtgaccagg acctgaagaa gtattttgac    300
agttgcaatg gtgacctcga tcctgagatt gtaaagtcat tcctcttcca gctactaaaa    360
gggctgggat tctgtcatag ccgcaatgtg ctacacaggg acctgaagcc ccagaacctg    420
ctaataaaca ggaatgggga gctgaaattg gctgattttg gcctggctcg agcctttggg    480
attcccgtcc gctgttactc agctgaggtg gtcacactgt ggtaccgccc accggatgtc    540
ctctttgggg ccaagctgta ctccacgtcc atcgacatgt ggtcagccgg ctgcatcttt    600
gcagagctgg ccaatgctgg gcggcctctt tttcccggca atgatgtcga tgaccagttg    660
aagaggatct tccgactgct ggggacgccc accgaggagc agtggccctc tatgaccaag    720
ctgccagact ataagcccta tccgatgtac ccggccacaa catccctggt gaacgtcgtg    780
cccaaactca atgccacagg gagggatctg ctgcagaacc ttctgaagtg taaccctgtc    840
cagcgtatct cagcagaaga ggccctgcag caccctact tctccgactt ctgtccgccc    900
taggccccgg gacccccgcc tccaggctgg gcctggccta tttaagcccc ctcttgagag    960
ggtgagacag tggggggtgcc tgg                                           983
```

<210>   130
<211>   454
<212>   DNA
<213>   Homo sapiens

<400>   130
```
ttttttttttt ttaaagttaa ctattttaat tagaattttt attttgtgct tcagggccac     60
```

59

```
aggataaaat aactacattt agcttgcctt tcagtgacgc ttttgccaaa tgtcagctac    120
aaggagtcat ctccctcacc gccaagctgt ctagcagcca gagtggtagc tttactgtaa    180
cacacagtac tttttgtaat cagactcaaa gtcttcatcc atactgcttg tgtctgccat    240
cttttgcca tcagtctttg gcagaaattg tgcatagtct atccctgct gctcatagaa      300
aagaatgtag gcagagtcgg tgtcaatttc atccgggtga agttccttta cagctgctgt    360
cattgtaaca gtaccacttg cagtttgggt ttttggcata agtgacgtaa tgggcccca     420
cccagaattc cccgaatggc acgaaattgg cata                               454
```

<210>   131
<211>   552
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   131
```
ctcccagcag ttcttagcat tccactcaag atggtcaagg atggggaaaa gggcctttgc     60
tggagttgcc agctagaggc attctcaggt agctaggtgt agtgtatttt ggtgcctctg    120
gtctctgggg caatgtcttt tgtcctccaa ctgggtatgt atggatactg tgattccagg    180
tctgtttttt gacttaagaa ctgctcccag atttccaaat ggaagttttc acactatgac    240
ctagaaatga atagatatac attctgtctt gggtttccta agccagtctc ctataaaaca    300
aaaatttcat cccaggaact cttccatata agggaacata tatgttttga aaataattca    360
tccatttctt tgctcccata aatacctttt gcccaggatt tattcaaaaa aaaagaaaga    420
ttgctactta atgtttctat tccattggag tgagtgattt attcattgga ggtctaagtg    480
atgatcatag aaagaaacat agagtactag aactggaagg aactaatctc natttatag    540
gactctcgtg cc                                                        552
```

<210>   132
<211>   545
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   132
```
actgttgacc tgtcactgtt tattatttca gcactaaaac tgaggagcct caactgctgg     60
ctcttcttcc ctttgtattt gtgtaaggag cactgcactc ccataaaagg ttttaaaata    120
caaatgtac aagaacacac aattccaagt gctgtaaaca taactgagaa ccagttcctt     180
tactaaacat ccattttata aaatacaagg tttcaatttg agcccatctg agccttaaag    240
atccattctg aataccaaaa acagggcttc acagccaggc ccagaagagg tctggtgata    300
atggctggcc ctgggtgggg atagtttaca cccgggcagc agcaccacac atgaacccaa    360
agacatgttc ttttttaaagc tgttttcagc catgtttctc tggtgcatct ccagtaagca    420
gaaggctacc cattccattc ctcaaccca agagctagca cagttagagt aggaggggg     480
tgcgtactag cacgtgncca gttgctcagt gcggcaggta gaaatgattt gcataggtcc    540
atggg                                                              545
```
```
                                60
```
```
                                60
```
```
120
```

60
```

<210> 133
<211> 384
<212> DNA
<213> Homo sapiens

<400> 133
ttttttttttt ttttcttaaa ttatatttat tatatgaaat acaaaatgtg gaaaatttgg   60
aaattacaga aaaaccaaag atgaaaatta cagtgacttt gttccaccat acaaagataa   120
ccactcaaca ttttttagta tgccttccgt ctttttttatc tgctctacgt atacaagcat   180
acacccatat tttaaaaaac aaaattgaaa tcacataaca tgcactattt ttacaacctt   240
ttaatattca aggagcattt ttctttcagt cagatgttct tttacatgac ttttaatgtc   300
tgcgcggtac tccaccatct ggatggagat acaataattt acttaagcaa tcccctattg   360
caaactttcg ttacagcaga aaag   384

<210> 134
<211> 168
<212> DNA
<213> Homo sapiens

<400> 134
ttttttttttt tttttttttt ttttttttca aaacaagtgt tatttattat aaaatcagtg   60
gcttctgatt agaagacttt ttttttttaa accaaatagg ctcaagaagc tggctggagg   120
ttgaattggc tgacgaacat cttcttcctc caccagcagt ttgtggga   168

<210> 135
<211> 175
<212> DNA
<213> Homo sapiens

<400> 135
gcaggctgat acatgtgggg gattttattt caggcacttg ctcttcagtt tttcttacac   60
gatgttccac aaatataaaa atgagaaact ctttcagatt atctgtatat ctatatacct   120
ggattattct ggctaaagcg acaggaaatc ccagcagtct ggcttccccg agtaa   175

<210> 136
<211> 246
<212> DNA
<213> Homo sapiens

<400> 136
ttttttttttt tttttggaa gaaaaggaag gggtttattc tcaagcgtct aagggtttac   60
aaacgagggc attttgtttt aaaaaggggc agggcgacac tggcggcctg aggaggggtc   120
cattggctgg tgggctggcc gagccaccct caggcccctg cccacccggt ccgccctctg   180
cctggtccag agggatggct ggtgacgagg ggggaggtct tgggagaggc tgggaggcag   240
gagaga   246

<210> 137
<211> 263
<212> DNA
<213> Homo sapiens

<400> 137

```
aaacaataaa cagaatttat tagctcatat aacaaaaaaa gtccagaggt aaggccaatc      60
tcaagcaagg cttgatcctg tacttaaaca atttcaccaa ggacttgatc tctttctgcc     120
tctcaactct cccttcagtg gtgtcagctt cacgtgattc ctggtcatga tcccaaggcc     180
caaggtggtc atcataaaga cccaggaata ctactacctt tttcacattc aacaggggaa     240
ttaaaacagc ttctacccag cat                                            263
```

<210> 138
<211> 394
<212> DNA
<213> Homo sapiens

<400> 138
```
ttttgtcact ctgttcttcc atgcctttat tggtaacagc aatggacaag aacaatacca      60
ggcatagcag acaccctagc ccagtacctg aggtgccagg caggccctga aggcacttgg     120
cacatccagt cccagcccaa gatccagtct acccaggcca tgtccccgaa tggcaggagg     180
cgtctgtcca gtttgtatgt gtggatcagt ctctctgagt gtctgagccg ctgcctgcag     240
ggcccccca ttctccgcac atggtagggg ctgttaggaa catagcgtgg catcccccgg     300
tggaccactg ggccccagtg ctgaccatgg ggattagggc cagggattgg aggtggcaga     360
gggccaggca caaagttcac tccagggcca catc                                394
```

<210> 139
<211> 303
<212> DNA
<213> Homo sapiens

<400> 139
```
ttttcatttt gaaaaagcta tttacttttt ttccaaatat tatcccaaaa ggtgttttac      60
agataagggt caatacgaag tcaaacattc tacagaagaa aatcgttttt acagacatta     120
agaataattt taacagaaga aaaagctcac atctatctag atgtggctat gttccatggg     180
aaaaatttca gcatccaaag tgcaaagaaa aaatgactgt agcttttctt accacaaaat     240
attgacaatc ttcccttata gcctactctt tattgttagt tgggatgcca aaggatgata     300
tat                                                                 303
```

<210> 140
<211> 280
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 140
```
gaacaaaaca gaatgttatt ttattttgtg tctaagagta caaaantcat aatcaccaac      60
ctcttgggaa tcccaaggca ganttttagt cccagacccc ccaacatcct cactacatac     120
atggaagttg ctttactcct ttctacctta gttatttgac ctataattag aggataaaat     180
acaacattct aaaatcctgg taatatggcc gatatataat tttatttttg atgtgggtga     240
gagtcttgaa gtctggaaag catttaactt attaaaagac                          280
```

<210> 141
<211> 495
```

62

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 141
```
tttttttaaa tttaaaggag tttaattgag caataaacag ttcaagaatt gggcagcctt   60
cccagccaga gtaggctcgg acactccagc gcagtcacac ggtggaaggt ttgcggacag   120
aaaatggaag tgaggtacag aaacagctgg gcttggctac agcttggcat ttgccttatc   180
tgaacgtggt ttgaacagtt ggctacattt gattggccaa aactcagtga ttggcacaag   240
tgtagtctgt ttacacctcc acttgtcacg atatacagac aaacctttag gccaaactta   300
aatatataag gaggcagctt taggctaaac tttatttcaa tacctgtatt ccaacacttt   360
gggaggccga ggcgggaggg atcacttgag cctaggaagt tagagattca gcccaagcaa   420
catagtgaga ccttgtctct gtggaaatta atttagccng ggcttggtag cctgtaccng   480
tagtcccagc tactc   495
```

<210> 142
<211> 402
<212> DNA
<213> Homo sapiens

<400> 142
```
tttttttttt tttttcttag ttaatatctt taatttttta tgtagaatat actatttttt   60
tctccaccaa aataacaata tatttgcagg cgggaacatg tatgatttta aatgcacttt   120
tgaaatctta gagtagaacc actactctag taatacttgt aataaaatta aaatagtttt   180
aaacacttcc ataaagaatt aggggtgccc agctccttga tttcccccta gggataaaga   240
tatccatgta caattccagg gagcttccct gtaattcctc aaaaaaggca ctagtaaaac   300
tcttaggagg gatattagga taaaggctca cttaggcaat agcccttttt ccccacatat   360
tctgggaggg ttctacaaaa gctatttgga tactcattcc gg   402
```

<210> 143
<211> 463
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 143
```
ggtanngatc ngtgtattta taatcaagtt gaatcaagag tgacaagaag aaatacagct   60
agagttatat ttttgcccca ggggtattct tttcctagaa gagcaagtcc attttttagaa   120
aatttaaatg tctttatttg ttactttcca aatattttgg ttaaacaaat atctcttgca   180
aatgtatctt caaaatcttt gcctacatgc atacaatttg ttcttcccaa ctgcttaggg   240
gaaattcctt caaaatgctt agggagttct aacacatcaa atctgatcat tttgtttaca   300
ttagggaaac accaggacat tgtgggatct cttctttaaa aaaacaggat ttttatttta   360
ctggcatttt caccctcagg acatgtctcg taaggtntga ggggttaggc taggnagggg   420
ggngggttcc agggcaacac atttaccaaa tggacncccg ggg   463
```

<210> 144
<211> 466
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 144
```
aaaaattgta aaattaaggt gaaataattg ggaatataaa accccaatgt aagataaagc   60
aaattgcttt attattttta aaaatgaaga acccccaaat acaganttaa gcagtaaaaa   120
tcttttgtag ttctttcatt aatctgtatg atccaaactc aagtacgtaa ttttttcttt   180
tttaagaggc aggttttgct ttgttaccca ggctggaggg ccatggcacc accacgcctc   240
acggcagcct ccacctcatg ggcatcaagt gatccttctg cctcagcctc ccacgtaggc   300
agggaccaca ggcggaanac ccatgctcag ttattattat tattattttt aggagacagg   360
ggtcttggct atgttggccc gggnttgtct aaaaactncg gggctcaagt aatccttcca   420
cctcagtntt cctaaggtac gtaatatttt taataggcaa accatt   466
```

<210> 145
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 145
```
anncccagat aagtgtgcaa ttatggagaa gtttatctgt aagaacagat aaagggaaat   60
tgtctacaca tgtgcatgta gaaagaaatt atggagatgg attcagccct caaagcaaaa   120
gctctattta atttgaattt ttacttaaat caaaagcaga aaatttaaat tgtcactaat   180
cttaactggt caagggcatg atgcatcagt ctcataacct gggcaaaaac ctgcccttaa   240
atgatcaggt cagaaccagt aagagtctct atcctgggtc ctcggtaata cagagagctc   300
ccaaatnaaa ttatatgtat tacagagcca attcagccca atntacagtc tctgattttc   360
acatggccta cacaaacttt atgtt   385
```

<210> 146
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 146
```
cattaacttg acatctggta aaacaaaatt ttgcgtanat ctaaatcaaa acaaanaaca   60
gacatgacac tttctcagtt aaaatagtt aataaaagca acaaaactgt gctaacgatc   120
agaatcaaaa atgagatatt aggtagactt ataaaacaaa gtatagttat tttttgattt   180
```

64

```
caaataaacc atgtgcaaaa ttgtaaaatg ccaatgtgtc tgagaaaagc attaacagtc     240
cttttagcaa tttatatata aagatgtttt taaagtgcca cagcttaagg cattatattt     300
taaagtttaa taaacatcta atttcaacat ctctccaaga acagacttct tctcaataag     360
ctataaacta tt                                                        372
```

<210> 147
<211> 463
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

```
<400> 147
cttttcatat ttcaacttta tttaaaatat gaggttttat gtccagaagg gagggcagtt      60
gccatcggaa ggtgaagtga ggcacaatac tattgggttg cgggccaagt acacagggtt     120
gcactgtgaa ggaactgagg aggttctggg agggcctggt gacaacaatg gatttgggga     180
gatccacaaa ggaaattttc atttcctccc caggttagct attcagtggg tggattattc     240
agtcttttta agcaaggtca ctgctcctta gcaacatcaa caaaagtgcc aaagctgagg     300
acacagagaa taccatcatt gtcttttgtt tctctttatg cctggatggg gaaaggaatg     360
gaaactaata gcagaaaatg aaacatttcn ggatgttatc ccttgccatg aagaatcacg     420
ggcttgtgta gagacctctt tcctttcntt tttttttttg agg                      463
```

<210> 148
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

```
<400> 148
catctctcct tttttctttg gactttcctg agaccccctc tccttggcca gccggtgtct      60
gcatcttgca gctctttcag ctgtaatcca ctgttattat aaggagccct gttgctgtgg     120
tggtaaggag tggggaaggg aagcattcca ttttcttagg attacatctc aatcttttgg     180
ntgggcctat gttgctgtac tgtgaccttt acaaatgttt cttaaccttt ttcctccttc     240
cttaggttga cacagggaat ctaggagggt gactcgagtc agaggaacta tcttctcccc     300
aggatggggg ataaggactc tggggtaaag gcccttttcc ntggggagag gtaaggtctt     360
taatcatagg ggggaacatt tctgagggcg cactttcaaa gggcatttac ntttcccctt     420
nccctttncc agagccnggg gggaaggggt ntatcttngg ggtctttt                 468
```

<210> 149
<211> 496
<212> DNA
<213> Homo sapiens

<220>

65

<221> misc_feature
<223> n=a,t,g or c

<400> 149
```
tttttttttt tttttcttta ttaataaatt ttatttttag cacaatcatt tacccaaaaa    60
gagagtttga gaatgttcga gaatctctac cactcggtaa ccatgctggc tgttatatca   120
gaaaaatcca taaacataca cagcagcgag ctgttttcac aagacttcct gctaataaac   180
acaacacttt ctcctccact cagatgggag cctcagnatg ccaaaacggc aggatgtgcc   240
aactaactat agggctcgtt gctaaggcag gaggaaatct attcaagttt gtccaggcaa   300
attcgattgt acagtgggga tgggcgtctg cttctgcggg ccttgggaca ggggaggcca   360
ctgggtctnt gctggctgtt cccctgtagg gcagggtcga ngctgggtng gccctttagg   420
agggcaaggg ttaaaatggg tttntcatgg gggtttagga acataagggg nttttgagg   480
naaaaattgn caaatt                                                    496
```

<210> 150
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 150
```
ttttttttct ttataagtgc tttaattaaa accaatctta ttatgaaaaa caaaccaaaa    60
aaaccttgca ttgatggatg gtagctattt gcaatttctt gttttggctg gatgcattga   120
aggattaaaa atttaatatt taaggtgtgc cttaaactgc aaggttccct gatttttattc   180
tcatctagga atttttgctg ctttaggtag ctgacaacat gcagatccat actctatctc   240
ttaagatttt cttttgggaa ctgattccag ggtgaaattt tcttagggga aggatgtggg   300
ctaggaggct ggggtatggc aaaggcatgt tctataggca agggaaaggc caggatggag   360
gtgagggggt caaaaatcta ggttattaaa attttagggg gngacactng ggttttaaat   420
aaacntattt cttcccac                                                  438
```

<210> 151
<211> 371
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 151
```
ctggagcnnt tntnntttta tttgctcaat gaaaatactt cgtccttttt tatcagcaat    60
acatatagtt ccaacaagaa ctattcatca caaactgcca gcctggggat ttcttcatga   120
aatattttgt atttgcttgg tacatggttc aaggaaactc ttgtgtttgt gccaatcagg   180
gaaataaact gaacaataaa cgacactgaa atagagtatt aggcaatatg tagctttgtt   240
tttgcttttt tttttaaaa aaaaaccact gaattttttt ccacccacaa acacatggga   300
aagtgcagga aaccagttaa tctatggtga tggtatttgc catacggttt acaaacnagg   360
ccaaattaaa a                                                         371
```

<210> 152
<211> 353
<212> DNA
<213> Homo sapiens

<400> 152
taaaatgatc ttacaatgtc aacatcaatg ttaataaaaa tatataatag gctgaattca   60
tcaatgatag aataagttgt aattcacttg gaggttccat ctttcaaagt aagcctttca   120
tagataaatg aaaatccttt attttgtaga attttaaaga ttgttaaagg ctgggtcaag   180
gcaaagccac ctctattaga aggggaaaga aaagcaagat gaaacaaaat atgttatcat   240
acatatcgcg tgtgctatga gcatctttct actcctgcca gattgaaaat tctaggtttc   300
aacattcttc aggatttaac aagtcaaaat aaaagccgga attcaaatct agg   353

<210> 153
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 153
agctcacggg cggcaggcag aaccttcctt ttagtgagtt gtaaagtcag agagaagctg   60
aaaaattaga gtgagaccac ttattattta atgattttta agagcagggt cacctttaaa   120
ccagaattgg cttgaaaatg gagactgtga tatgcacggc taaaataagg gaaatgtcca   180
tttgaactga gactagaaag catgactttg cattgcagct ggctctgttg ataaaaatcc   240
ctcatccctt tgagtgttaa attgaaagac tangaaagca tttccaaggc gaagtgcttc   300
atgnctgtct ctcaggnttc ccacagctgg gtcccggggc atgcctgttc tggatgctct   360
ncattgcgag ggaaactgcc nttcacccnt agctcgtaat cccagctnct cggggggtc   420
gagggcagg   429

<210> 154
<211> 203
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 154
actttcttga atttattttt atttcaatgg ttttaatgaa tatttccgag aaagttcaca   60
atactcattt ttatgtttca atttatattc aaatttactc aaagntaata tcacccggta   120
ttattagaga agtctctcta aatactagaa ctgacatttc agatccnttt gtaataatac   180
tgcccccata aaatatgcat agg   203

<210> 155
<211> 319
<212> DNA

<213> Homo sapiens

<400> 155
tttccagtat aaattatttt taattttaga aactgagatt gaagtacagt ttttagttta   60
aaatattaaa aatgaaaaaa cctttaacat tattaaagat gtgttgttac aaagttccta   120
gatatataca tgtacaaaac aaatagatat tactatctga cacctcaacc catgacttac   180
cctaaatctc ctgatatgaa caattaatct actgggaggc ttttcccaat aagtttcaaa   240
tttcttgcac aaagatttgc tgccattcat attctgtgca tggatgagga catttaatca   300
cagactattt caacttaat   319

<210> 156
<211> 276
<212> DNA
<213> Homo sapiens

<400> 156
tttttttttt taggacaaat aaaatttatt tttctctgta aattcattta aaagtatgtt   60
atctatgatt atcctatcaa ggtcagaaat gttagatctt actccaagat aggtaaacag   120
cccttgaaa cgcaacaaaa agagacgatg atcttatgag ctcatttatg ttcatgcgtg   180
aaagtgtgaa gatcactagc tttgctgtgt ttctacaagt ttccttgact gtaaaaacag   240
tcaaaatgta accaacctaa ttcaagatgt taaatt   276

<210> 157
<211> 549
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 157
tcctngcnng ggtcgttact gttcattagg ggagaaagca gtttaaaatg tctcagcctc   60
tcgcctttcc tccaatcaac acaaagtata ttagacaaag tggataaaga ctggcattga   120
catcttccaa atagcaaaat caattttata atttaaagac aaaaaatgct ttaactgcag   180
agggcattta agacgtttca cacttacagg gctaatgaaa tgcaggacta gcataaaagt   240
ttttggggg gggtggggga gaatagattt tttaacataa ggagtcgata ggnaatcttt   300
aataattttt ccccccaaa taattttaag gtgctttaag ggccgcggga tcncggggg   360
ggtttcccc tcttttacc ttattatgga ntttaccata ttcctnaaaa atggatttaa   420
atccccattn ccccttcagg ccncaggggg gnaagggggg aaatttgctg tggggccc   480
tttntttagg ggagggtttc ctcctccagg cngctcctct ttaccgnccc cgtccggttt   540
cgggccctg   549

<210> 158
<211> 378
<212> DNA
<213> Homo sapiens

<400> 158
tttttttacct tttggcctga attttttttt aatttttaaa ttaaacacca acgaaaacct   60
cattttgtct aagcagattg aagagaaaaa atgagctata ctgatagaag ctgaaaaaag   120

68

```
aaattactgt ctacacgact aagaaaaaga ccaagcaagt gcaatgagta ataagttata      180
gaaatagcag caactccaca agaaactgat aagcatctgc cactatcaac tctatgctag      240
atgccaggca tacagtgaat gtgatgtgcc cacttcattc aagaagctca tcaggtggga      300
agaccaatga ggtatcagtt taaggtatga ggatgaattt tataggaaag caggcatccc      360
aaatgttccc ttatttcc                                                    378

<210>   159
<211>   307
<212>   DNA
<213>   Homo sapiens

<400>   159
ggtcatgctc tgttgcccag gctggagtat ggtggcaata tcataggttc actgtagcct       60
tgaactcccg ggctcaagtg atcttcctgc ctcagccttc caagtagctg gcactgtgtc      120
tgacaaagtt cacaactttg tttgtggtca caaagctttt cagcaggagg cagctatttt      180
tggtaccttg ctaagatcta gtatatcact atacgagacc ctacaaaaac acacaaaaaa      240
gcaattcctc atttactatg ttcaaggaaa cggcatggaa ataaaggtaa atttttaggg      300
caaaagg                                                                307

<210>   160
<211>   290
<212>   DNA
<213>   Homo sapiens

<400>   160
caagatctct attggctttg ctttggttcc tgtttccccc ctaaaaaaat ctaacttcta       60
aaaacattct gctcagacaa ccattccaag ttataggaca catgctctaa aggaaaccat      120
ccaggagaaa catttgcaca agttctccta tgacttgaga ttgcatctga gaagggtgca      180
gggggagaac agacagaaac agcccactct gtgtgcagaa cgccgtgtgt cctcagtgtt      240
tctcggggcc catagctcat tagctgcagt tggtatgaag cctgcaacct                 290

<210>   161
<211>   246
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   161
cacattttca ccattttatt cattaatgtt gtcagatggt ttagtggggc atgtggggaa       60
agaagggtag gagttgtccc cccatccccg tgcacaggtc aggacatgct gggggctcct      120
ggagggagag gaggatgggg tcagcctagc ccctcccacc ccagatttnt gcgagggccc      180
ccaggatgga gggtggtggg gggatgggca gacccttcag tccagggtag ggaagctgag      240
attata                                                                 246

<210>   162
<211>   344
<212>   DNA
<213>   Homo sapiens
```

69

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 162
gcttgtncag gttctgttta ttatgtnctc acagccttgt ttatagtaaa ggtgaatgac   60
atgattccac tttacacgat aatgaaaaaa ctcaatgagg actccatcag ccaagcggtt   120
tatatggcag atgagctgct acaaatctgt tgtgtgctcg ccgcgtgact cagctaatgc   180
taccgggggtt ggagcgcaca ccgagcccag ccacctttc catacctggc agagggaagg   240
gagtggaagg accagaaggg agtaagantc aggaaaggaa cagtttattg aaaggaccca   300
gagcccaacc taggaaggcc agtggcccat cctgaaatct ctca   344

<210> 163
<211> 162
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 163
cagaccctcc tttatttcct gancgatgtc acagcagccg taaaagaaaa ccagatgacc   60
ccaaccaacc tggccgtgtg cttagcgcct tccctcttcc atctcaacac cctgaagaga   120
gaganttcct ctcccagggt aatgcaaaga aaacaaagtt tg   162

<210> 164
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 164
gcagaggcct ccactttta tttcagttgt actcatctgt cccactgtgc aaatggagtc   60
acacgctcac tcaattctga gaggcctggc aagnaaagag aaaagatgcc cagagcagtc   120
tgttagagtt gcattctcag actaatatct ttacagtctt gagaaatcac tgtcagggtt   180
tatttaaaat gcagattttt gaaggataaa ttttacgact aatttttttt aataaactat   240
gcaggattgt tatttagaag atttgccaaa tttagagtct tcagcgatgg aaataattgg   300
ccttcttgtc acagtcttct gtttataagt gggtaaagaa agtttctttt ccagaaaaat   360
acagcagaaa atccgatggt tctgatagga gttaattgtg gagatgtgcc agagacagca   420
gcttcgtgga tggtgacacc acaatgtctg t   451

<210> 165
<211> 306
<212> DNA
<213> Homo sapiens

70

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 165
```
gcatgtattc ttcaattcag ggtcctggta atcactggaa ccacaagttc aaatgccatc      60
tagaccataa ggactcttat aaaacacaaa ccacttcatc atcaacaaac ctatttgcct     120
actagaactt ttaaagcaag gctgcaaact attcaagtaa acaaccttgt ggggtggttg     180
acatggaccg agagctaaca agagaacact ggaattagct tctcagtttc aaaatangga     240
cctaaaggag tttgcgctat aggagaagag ttgcttgcat tttgttttaa tgggaaataa     300
attttg                                                               306
```

<210> 166
<211> 443
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 166
```
taaacgagat gtttttaaga agtgacaaaa ctacttctaa gttcttcatt ttcctagtta      60
ggacaatatt cacaggaaat tgaaattatt attctaacac ttaaagtgaa atcactgaaa     120
ctgttttcat ttacctgaag attttaacaa acaggggcat gcaggacaga gtacctcagc     180
ctctgtaaat gcctggaaca ccccaactcc caaaggaagg cagagcaggt gcacatttcc     240
agagaggaat tgcaaaggat gcccacagaa acaggtaatt cattaccaga gaaaagtccc     300
tgatgttgga aatctcatgg ctgaaggcag aaactcaatc cgggtagaag ctnagtcaag     360
ttaatccana tggaagcaac ttaaattagc ttttctttta aaagagacac ctagactggg     420
tcccactcat tacctgccat att                                            443
```

<210> 167
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 167
```
ttgcaaaatc aaaaattttt tattccaaat acaatattct ttccaccaca cctcggctgc      60
aaggcatttt gtagagaatc tgtctgggga gagggatggg tactggaggc acatccgggg     120
caggtaggag acctggtggc caagactggg atggggtggc accatggggg tatcgaggac     180
gtgcatctgc tccagctcca tgtggcggta nancngcngc ancngcnggg gctncangct     240
cnngaacncc ntnaanttgt tctcggcgaa ctctcgaact cgctgtgcac agtggtgggg     300
gtnnaaatcc cagtaanggt cgctatngct ctccccatca ctngctgaga taatgggtaa     360
tactcgtgcg ttttngcgtt tggtataaan cccngtcata agggcaccan gtctttctga     420
tgg                                                                  423
```

71

<210> 168
<211> 436
<212> DNA
<213> Homo sapiens

<400> 168
```
acactccaag cactcacaaa tggctttcac aaacacttag cctaggctgg aacacaaaag      60
gatatcacaa cagagtccat tgggtttttac ttgcttacat caccaaagaa tgttcatggc     120
agttaatttt caggctgtaa aaactacatc tatggcacca acatggaatt taaaaacaag     180
ttggatttca aagtaccca aatgccaaaa actgaaagta ctatcaaacg ggtctccaaa      240
gaagtctagg atgctgtgat gcaggcctgt ccatatacct ccctggaccc tcaggtgcta     300
cctacaggcc tctgctcatt tcccataaac attacctcac catcccagga caacaaagga     360
atgccatgta agaaacaaac aagactggtt atctcctacc acaaacagga atacagaaaa     420
catggggcca gattcg                                                      436
```

<210> 169
<211> 461
<212> DNA
<213> Homo sapiens

<400> 169
```
acaacagcat caaatatcca gggaacttta tttttaaacc ataaatcaaa cagacacaac      60
tttcattgac ccaaatatgc ataatccaac ctgaatataa aatgcactga ataggtaaat     120
tacatgatac aaagggaatg taattttaca aatgtgaaat gattgatggc tacagcaatt     180
taacaaaata attaaaacat tgtatgttta aaaacaagaa tatcttaaag ccaattatct     240
atagtaaacc aagggaaatt ctggtatgga atgatttgat tcaaaggaaa taaggcacct     300
gctataaatt tagagaatat ctttcacttt taaagttata gtaaaataga attagttaac     360
caagactggc ttcagaggga accaagttca gggattcact tacagggtga aaagaaaatg     420
atcaatcaca acctacgaag tcatacaaag gaagactaga c                        461
```

<210> 170
<211> 363
<212> DNA
<213> Homo sapiens

<400> 170
```
aaatttaaaa agccaacctt tattccactt tgaacaagtt tgtgaatgtc caaataaggc      60
tccttgaaaa tttctccttc aggggtaagt atcttcacat aaccttcttt ttccagaatg     120
aagagacgtt gcgagccatc cccactatgc agggcaccaa cgggctgccg cagcccacat     180
cacaacctcc tgaatacaga agcagttgtg tttgtgcttt ctgctgatct cttccacttt     240
gtcatattct tccatctggt ccaagtagtt agatgctggt cctctgactt gttttcttgg     300
aaaatctgga aagcacaacc caccatcttt tcttgcatag taaaagcaaa actcatccgc     360
agt                                                                    363
```

<210> 171
<211> 428
<212> DNA
<213> Homo sapiens

<220>

72

<400> 171
```
taaaattaat cgtgaacact tttcttggta aaaactcaaa tacagaggat aggcaggatg    60
tctccctgcc cccagtttta cttcccgacc caaaggaaac ctggtaactg gctgtcatcc   120
tcccagaagt ttttctatgc ctttatttat taatgtacac ttgtaaaaca gcatttgggt   180
ttgctgttat actaatggcg ttataacata catacattgc agctcttttt tcatttaact   240
gagcctcaga aatcctttcc atatatacat gtagatctag gccattcttt ttaaagctga   300
gtaatgtttc atagtgtggg cataatacct acacttgtgt atttccagta agcctttaca   360
gatactacta ccntttttcc tttaaaaatt aaaaggtata atattaataa aaattcccccg   420
ggaatttg                                                             428
```

<210> 172
<211> 466
<212> DNA
<213> Homo sapiens

<400> 172
```
attttttata acagctttat tgaggtatta ttcacatacc atgctttaaa aatatacaat    60
tcagtggttc ttagtacatt cacagagttg tgcaaacatc acatctaatt ccagaacatt   120
ttgatcactc ctcccaaact ccataggcat tgactttaat gtaatggcat atacatatat   180
agaaatacat atagaaacca attattctag caccatttcc attctttccc cagggactgc   240
aacatcatct gtcataaatc aacttttcat gtctgtgtga atttggtttt gatctcccta   300
ttgagagact ggtgtacagt atttgtctat ccctgcacaa attattaaag caagttttgc   360
cattctgtta tccttcctca tgaatatctt gattactttt ggccctaact catcaagttc   420
cacagaaatc ccaattggaa tcctaggtta aaattggtgg tggtca                  466
```

<210> 173
<211> 406
<212> DNA
<213> Homo sapiens

<400> 173
```
gtagcttgcg tattattttg agcatctttg tttattaccg ctagaaggca ataactagta    60
caatgcttta tatgtataat atatacttat atatgtgtgt gtattccttt aaatcagatt   120
ctgattatct gaacatactt attttttaaaa gacatccata gcacactcta ttctttatgt   180
gtaaggataa acaatccaag catactgtga agatcctgta acatatagct ttatgacttt   240
ggtttaattt tctattcccc agtccacatt gcttgccggc gttctcctac cctgcatatt   300
ctgataacag gagcaaagtg actggcattt tcctccttct atggaaccag gggattcact   360
agtgtttttt ctatataatt cactggcaga gctataataa aacaag                  406
```

<210> 174
<211> 272
<212> DNA
<213> Homo sapiens

<400> 174
```
ttttttttttt taattagctg ttcttgtcat atagttttat tcctttatct tttttttgaac   60
attttataca cccttatttc aatgttcctt ttagatcact ctattctctt tactctctgg   120
gctttgaatc tccttgtttc ttgtatctgc tgcctctctt tgggatacct gggagttttt   180
```

73

```
cctctgacct  cgtcttcagt  aggaaatgat  tttccatgag  aatcctggtt  cccctggatg      240
aggacggtgt  ctcctgggga  gaatgtcctg  tt                                      272
```

<210> 175
<211> 196
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 175
```
caatagcaga  cttttaatca  atgccagaga  caaagtgagg  ccgagctaag  aacacgctca       60
gctncgttac  aatgaagaaa  tggtttcctt  tcgatgcaaa  gtataattgt  aaaccacagt      120
gctcgcacag  ttcacgnctg  nttaaagnga  aatcttagcc  atacatcacc  taaaagtaat      180
taaaaagtca  acacag                                                         196
```

<210> 176
<211> 417
<212> DNA
<213> Homo sapiens

<400> 176
```
ttttttttgg  catggctttt  ttattctctt  tgcagccaag  acctgttttt  acaattaaaa       60
ccaaaatttt  gaatcacaag  gttcctatgt  ctatgcatac  ttgggaactt  agtgtgagga      120
aataatagtt  aattgaaata  ctagtggaac  tgttaaacca  caaatttaga  ctaccaggag      180
aaactgaatt  atttgatata  ttacatgtaa  tgatgcacgt  tatatatttt  acatatatta      240
catatatatc  ttgttaggtg  aaatgggccc  acttgactca  ctgaacttta  tttttttagac     300
agagtctcgc  tctgtcgccc  agattggagt  gtggtggtgt  gatcatagct  cgctataacc      360
tcaaactcct  gggctcaagc  attcctccca  ccaaagtcct  gggattagag  gcatgag         417
```

<210> 177
<211> 413
<212> DNA
<213> Homo sapiens

<400> 177
```
ttcctatgct  tttttctat   tttaggcaca  atgctttaat  aaattacaca  aagactacaa       60
acctttatta  catcaattgt  tacaaaaggc  taagtggaga  aagattactt  atctgaagct      120
gcacaaaatc  agtgggcaat  atggatttca  tttaagcttg  tcaattctcc  tggattaaat      180
tcttggcgct  gtctcacata  ttcccaagtc  ctacatgtag  aatgctaaaa  gttgcagtta      240
ctaggttggg  aaagccatgc  ccagacgccc  ctgtgaaaaa  catatcaata  tattaagttc      300
cttagcaaat  cacatctaga  ttaagttcat  aatgcttttt  ttttttttaa  ctttgcaaat      360
ctccaaactt  ttgctacttt  cttaataaaa  tacaacaaaa  tttttggcat  tcc             413
```

<210> 178
<211> 233
<212> DNA
<213> Homo sapiens

<400> 178
```
aagcttgacc taagcataca cagaaaaaat taatattttt gttgttgttc tagattctat        60
tattcaggca ggctttctat attttcccct taggtatcta tactttagta tagatgctgt       120
cactgtgaga gactacagaa agcagggaaa atagaagttc tatagcttca tctaccaagg       180
aagatctagt ttaaaaccta gtaggggaca tgtcccaaca acttgaaaat tag              233
```

<210> 179
<211> 314
<212> DNA
<213> Homo sapiens

<400> 179
```
tatatacgaa ttaaaattta tttcaaactg ttttgtacat cttttttaaaa aatgaaaatt      60
caaaagtctt agaattaaga atgagtcttt gatatcataa agctgtgtat aacaataatt      120
aaagtagtgg taacatttta cccttgtaaa aatgtcacag aattaaaatc tcaacttgga      180
tcctcaatga ttcaactggt ttatcttaca caataagcgt ttggtcagtt tcaagataaa      240
atttccccag acatgctgtc cttaagtcct tcctcctcac catccatcag ctcacacatt      300
ggggtagctg gctg                                                        314
```

<210> 180
<211> 319
<212> DNA
<213> Homo sapiens

<400> 180
```
ttttttttttc actgtcacca tgaatttaaa tttattgagt gccccacaaa tgctagtcta      60
ttctcagtac atttgatgaa caccatttct ttatctctaa aggatgagag aatatttgct      120
actatatatt tttttttgctc atcacccagc cagaatacaa atggaactcc tatgaatatt      180
ctaaagcata atgaggaagg ggctccaggc taaatgcaag tatccttgat taatgttttc      240
cccaccactg ggaatcaccc tcccccgctc ccctgaagct tccccacaag gtgcggggg      300
aagcaggaga aaaaaaagg                                                  319
```

<210> 181
<211> 194
<212> DNA
<213> Homo sapiens

<400> 181
```
ttttttttta caatgtgttt attggacaca caaaaaaact ttgcaaccat cataatacat      60
caatatttaa cctagataat tctgaaataa tttggattct ttcatttttc aggatttgag      120
ctcatcaatt atgttaaatt tcctatattc tgttacaaat ataatacaga tttcataagt      180
ctgccttgat tcac                                                        194
```

<210> 182
<211> 247
<212> DNA
<213> Homo sapiens

<400> 182
```
ctagtttttgt cttttttggca aataggagtc cctcagaatc tacacttgct ctgaaatgta     60
gaaaaattga ttcaataaag gacggtggtg aaaccgtcct ttgagatatt ttacttttct     120
tcttaaagag catacacttt ttaatgatcg tgtgtgtgtg tgtgtgtgtg tctgtgtgtg     180
```

75

```
tgtgtgtgta aacccttaa aaagagattt tggaaactga attctgggaa cgtttttttt      240
ttttttcc                                                              247
```

<210> 183
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 183
```
agaggttgat aaatgctttt aatccccaca ttccacacac gggggacgct gtcattcaca       60
ttttcatatt tctgttctgg tcgcagtctg tgtcctcacc accctcatga atgagggact      120
ttgatagatg cctgggtttg tgggctctgc ggtactggga aggagataca caaagggtcc      180
tcggaggagg gtgtgggana gctttgaagg ggacaaccac tgcngacacc tggagggggag      240
ctaaggggaa natcctgaga ctttaangag acattggaat ggcttgggc                 289
```

<210> 184
<211> 567
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 184
```
attaggagat aagtttactg ttcattctac aaagacactt aactcatgga acactgagtc       60
actctaaccc ttgacttcat tacacaaaat gaaacacttc tgaagaaata cagaatttct      120
taactcacgg caggatcaaa gaacaaaggc tcctgctttg gcatttcaaa gttgaacaga      180
gttctcaata agaaggccac agtcaaatac taatggaatc tcaactctaa attaaaatga      240
ctaatcatta aactgttcaa cttagagtaa taaaagattt ctagatacag accccgctgg      300
cctatagtca gtctgggaag ggctagaaag aaccaaccca tttgtgtggc ttccgtatct      360
tccttgcaca agcaatggaa acccagcagg gaaagcagtg gagctggcag agggcagggt      420
gagaagacac ccagtgagga ctgacgggag aggagaggcc agggcagcct caggtacagc      480
tcatacctgn acttccttgg cctcagaaag ggttgctgtg attgnccatg ggtccctaaa      540
ggccgccaga ggcctttggt ctggaaa                                         567
```

<210> 185
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 185
```
gtggacactg aagtctctgc ttggttagta gtcatctaat agttgtacac ggatttcctc       60
```

```
aaacacttgg aatcaataat tcaaccagtc tctgccaagg agctctgtgt gaatgctgag    120
gcacactcaa cactccgcca tgcaattgac aactctgcat tccctttact tatggcttgt    180
gcaganctca agatcagctt gaagtgagag cttaaggctt tcttgggttt ttcctgagca    240
tctgcacagt cctgggcatg gatggagtcc tatttatgca tttggcagtc tagattgcca    300
ataacacttt ggaagctttt caaagtccct atgaaaatct ctttttccag cttctccttt    360
taggcttttt atttagccaa ttgctttccc ccaactgtta tacattaacc ccaggcagcc    420
aca                                                                  423
```

<210> 186
<211> 219
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 186
```
aattgataaa ctgagtttat attcacctat tggaaacagt acaacatatt ttacatcagg     60
ttatgaaata tggatgtttt actaaaagac aggaagagct ttttccagtc tttaaagtaa    120
atacatattc aaagaatctt aaggcatacc atttattcat attcatatct attgaaatac    180
tgtacatcca catacttcaa taaatagtta aaaaccnga                           219
```

<210> 187
<211> 477
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 187
```
gaccatatat tctatttatt tatcttattt attatccgtc tctcccagct aggatgtaag     60
cctcgtgaag gtggaggagg ggggcttatt tctgaatctc cagcatctag attggtacct    120
gccacacaaa tatgtgctcc ataaacaaat gcactttttc ttttctgcac tccctgggtt    180
gcaggctgca tgcgaanacn gtcctcaagg ccaggatct gtctcaagcc tttttgaaaa    240
ccaccccttt cctacgtgcc ccacacccag ctctagcagg gtgccctcct gcccctgagc    300
ctgccctcat catgcccatt gccgaggcct caggactgaa tcacattttt ggagtcttcc    360
caggataagc caataggcat cattattcta cagcgatgct catgtataat tataattatt    420
atcctatatg aacgatccat tgctgctgtg taattccaat ggnaattact gggccta       477
```

<210> 188
<211> 501
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

77

<400> 188

```
ngaacggtct ataagatcca gatgtttatt tcaaaaccca aacccttgtt accttgaaga      60
atctttacat atttacgtaa tacactgtac attatatgca tggcctgttt atactatttt     120
caaaaagaga atattgtttt aaactattaa taaaccaaaa ttaattgata gggcagcatc     180
aatctgtatt ccatccttgg tccatggatt tccttaaatg atggcatcat gttcatctat     240
ggttcgatac cgaatgcctc ttcttgagta atacattttg catccaatgt aaagaataga     300
taaaactccc agcgttaata caataccacc aacaaagctc ccagtatcaa attttgatcc     360
tttctttgct tcagaatgca tagttgttgt gattgttact gatgaagcag cagatgtcac     420
tgaactattg tggggttacg gtcattggtg gatgttgata tctgagatgt gtnctgtgaa     480
acacttggtt ggttttgggg t                                             501
```

<210> 189
<211> 310
<212> DNA
<213> Homo sapiens

<400> 189

```
ttttgaagg cttaagcaat cggggacgag ctttattgag gcaatcacat ccacatttca      60
gttgtttgca atgattggca aacggatgag ttaaaaaagc cttctgcttc cacactgttc     120
cgtctacatt cagaaagcag taaaaatata ttcgtgcaat gaacactttc caccttaagc     180
gtatcatgac agttcacaaa tttgccaaca gacaatgcaa aacaatattt acaagataga     240
ccctttgtaa gttccaaatt tagatacttg tggtgtaatt ctaaaactaa catcgcatgt     300
ttttccaggt                                                          310
```

<210> 190
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 190

```
ttcggttctc agtgttggaa agtaatatgg taaaacttct cttctccgag gacaatagaa      60
tagtatttgt tgtatagact gaaccatcct ccaaaatttg gaagtcagga tcacttgaat     120
gaattagatt tgcagctgta aagcactctt tcaggttaac tctaccaaca gtttctcgg      180
catctagttt ggagggaaca tgtaatgtca cattttgca ggcatcactg gcaaatatta     240
agatcgcgag ggtcagcagg agcagccggc agagggctcc gttccaggag ccggacgggc     300
ggngctgcct ccatggagag ggctcggggc aggtcgcggg ccgancgtcg gccggggggt     360
taggagggct ccgcggggcg agggccgcgn cggaagcgca gtctgggccc gctgctcagg     420
aggaacgcga agcganggag gttgggg                                        447
```

<210> 191
<211> 441
<212> DNA
<213> Homo sapiens

<400> 191

```
cattattata agctgaattt ttattttact aaattatcta tgtcaaaaaa attctgtgcc      60
```

```
tggcgtggaa tttcactcca tcaagtgtta caatgatttt ttcattttca ttacaagcag      120
gagaatgaat gtaggacaag tgttaggaaa catggcaata aattagaata taatttacaa      180
aagcaaaaaa attaacagtg taccacatta ttactgagta taaaataata agcaacaact      240
aatcacaata atacaaaggt aatttcgttc tgtgttactg aggataccta tgtgacattc      300
attcaaacaa aaaagttcct aatgaaatgg actatttggg aaatcatatg tatctcacgg      360
ggtttaatca ttagggtaca tttaccgttc cctttttagt aggactttat cccagtggca      420
gatactgctc ccaggtgtaa g                                                441
```

<210> 192
<211> 343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 192
```
gcatttatna ntanttttta ttttttgcaca ggaaaaacta gtgagacaag attcaaacag      60
tctctctctg tgaatcatct gtcagtggtg atgatcacgt taagtttcag aagtgtagta      120
catgatactc ttaacaattt gtctaaagca atgtttctca accaggggca attttgctcc      180
taaggggaca tttaacaatg gagacattct tgggttatca taactgggtg aagaaggcaa      240
gggtatgtca ttgggcatct aggtgaggtt gagggctagg ggtactgcct aaagntccct      300
accaatggca cagggntacc ccccnttctg gtncccanca cat                       343
```

<210> 193
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 193
```
cctggcatta tctttttttc ctcctacagt ttcttttaca gagtcttccg tggctatagg      60
tcggaacagt tttcctgttg ctatgagaac ggcataaata agtcaagttt aaaattcact      120
ttggggggtat ggagccgcca cagttccggc tacctaagcc ctcctgggtg tgtgttgcgt      180
actcttccct ataggcagtg gatcacagcc atttaacatg gccttcctcc accatggccc      240
atcttctggn cagaaaaatn ccacaagcct ngcagagngc cctctaactg cttgggcttc      300
tacacacaga cctagtaatg gtcttctgtg ctgcaaggag agnaatatna agctcaacat      360
ttaacatttc tccaagtnca gaaattcatg ggcctcccaa actccacca                 409
```

<210> 194
<211> 395
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c

<400> 194

```
gtgttccaat aaaactttat ttacacacat tgaaacctga atttcataca attttcacgt    60
taccaaattt taattttttt tcaactattt aaaaatgtta aaaccattct tagctcacag   120
gctatgcgaa anagancaac cagccagatt cggcccacgg tttaaggcca gtttaagcct   180
caccaccttc ctagccccac tcacctattt tgtcctctca tcttcctgtc cttcagcacc   240
cccatgacct tcctgtgacc ttcaatggcc cctccagctg ccgtccagcc ctgtctgtct   300
gcccttnggg gaccctctcc tcctgggctg caggactgtt ttttcctgga gcaggtctct   360
aaatagctcc attcgccttg gcagggggaa tccag                              395
```

<210> 195
<211> 482
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 195

```
tttttttttt tttgagtttt gagggctttt aaataatgtg tgtgtgtgcc tctgtgtgtg    60
tgtgtgtgta ttttttttcta gatactagtc ctttgttgga tgtgtgattt gcaaatattt   120
cctcccagtc agtagcatgt cttttcattt ctcttttctg ggcctttcac agagcagaag   180
tgtttaattt tgatgaagtc cactctatcc atttttcttt ttatggatca tgcttctggt   240
atcaagaact ttgcctctct ccttagatcc cccaaatttt ctcttttatg ttgttttcta   300
aaagtattat agtttacgtt ttacttttaa gtctatattc cattttcagt taattttgta   360
taaaatgtga gacttaggtc tgggttcatt tttnttgttg ttgcccatgg atattcaatt   420
actcccaaca tgatatttgg tcgaaaaggc ncttttttgg ccaatgaatt ggttttttngc   480
ac                                                                   482
```

<210> 196
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 196

```
tctggcgggc taacgcttta tttnccagcc aaggccccgg gccgcctgng tttctgctca    60
gaagatcctc acggagtcca gctgcacgtc cccgcccacc tccaccaggc gcacgcngca   120
tgcggcatgg cggtggcgga agtggtggta ctgggcgtcc ccaaccacgg ccttgaagcc   180
gtcgtctgac gcgatgatga gcacctcgaa gggctgcccg cgctggaaag gaacgcccgg   240
cccgcgctcc tcgcggcccc aaggaagcct tgctcctttg ctgttgaaga ccacctccga   300
cgtgtccagc cggggggttga aatgcagcgc ggcatcggag ccctgctcct tccccgcaca   360
gcaggtttta caatggaacc ttgcttnggc atttggg                            397
```

80

<210> 197
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 197
```
tttttttttga aagccgtaac atttattgaa gagcggacat atgtttgcaa atcacagtgt      60
gcatgggcat gcattacatg gttcataatg ctattccaat taggctttc atagtgcctt     120
ctcataacgt cctttaaaaa aaataataac tgaaagggaa aagaaagtgt caattgcaat     180
tacatttaca aaaccaaact gctgctttca attagagtga atctgtgctt cgctactcag     240
atatacacat gtagattttc caaggcccat gcacacactt ctgtaggggc agaaattttc     300
tatgaataat ggctttagca acccgaatag tatctctaaa cattgacaag cttggggaac     360
agggcaacaa gtgcaatgaa caatacaatt ctaacgttt gtcccagtca acataccact     420
ttgccctgga gatatttaac acagcatttc attttttggaa tgataagggn taattcntcc     480
aatttanggg gattatacng aatataccna taa                                 513
```

<210> 198
<211> 224
<212> DNA
<213> Homo sapiens

<400> 198
```
gctattaatt tcatgtttat ttcatacagg gtttttgtca agtttatcag ttttaaaatg      60
attaagtcat aatcaccatt caaagacaaa ttttcctctc aaaataataa tttccattct     120
gctacctaca gtttggctta tcctttggtc tgatagccat acttcatctc acgaggacta     180
tacaagtatg tactatgtac aaaacatttt caagtttgct ttca                     224
```

<210> 199
<211> 448
<212> DNA
<213> Homo sapiens

<400> 199
```
tttttttttt ttattgtgaa cacaattttc tttatttcat ttttggagtt ttctgaacag      60
aaaaatacaa ttgatttct gtatattgat ctagcctgtg accttgctga acttgattaa     120
ttctattaca ctatgatttt ttgttgtggt tagaccctta cacaatcaaa tgaggttaaa     180
aaaaaattgt cagagtggcc ccagaccaac aacaggatga cagtagcctt tgcccataca     240
gagataaaat ttagttttttg cagtcctttc ccatagagat tgtatggcag tagcaattct     300
atggcctact gccatacaac ctgaactgaa gtccagaaag tttaggtgac tgggccacag     360
agctaattac tggtggagcc aagaagagaa attatatccc tacctccttg cccactaagc     420
tccccattcc agtgggctgc tttctggt                                       448
```

<210> 200
<211> 378
<212> DNA
<213> Homo sapiens

81

<400> 200
```
gtccaaaaaa tatgtagtgt caagttcacc actcaaattc taaagatgtc agttgtctaa      60
gggacaaaaa agttgcccca aaaagtccta gggaagctta tgggtacact taccttgctg     120
gagaatggtg ccatctgcat taactggttg atagacgatg gtctgccctt cagcagtctg     180
tgcacttgct gtccctggac agaattcgtg ctgcatgtgt ctggtctggc cagcagtgac     240
agccgtctgg ggctgctgga tgatgatctg ctgggtctgg cctgctggcc tgcacctgca     300
cagcctgtcc accctggatc tggatctgtc caggtgggac caactggtat ttgctgcaaa     360
ccctgtgttc cagaaaca                                                   378
```

<210> 201
<211> 403
<212> DNA
<213> Homo sapiens

<400> 201
```
caagtgaaaa taaaaattta ttccaagttc aaagtcatag agaggaactg aagtcatcag      60
gtgcaggact ggggtcagga aagggcaagg actttgtgtg gctttatatg aaggaacgag     120
tttaacatga ggaaggaacc atgaaccaga gataaagaaa gcctgtgcag aaagttaaag     180
gatccttttc ctgtttctta gctgacaaag acttcttca gctagccata aggcaactgt      240
caaatatcat cacatttatc ttgaaggata aaatttgtgc aagctcaatt gaacagcaag     300
aactagatgc aaggaagaag tcagccagga tgactgtggg gctgggtcat ttctcagctt     360
gttagagact gagcccagag atagtcttta gtccagactg tta                      403
```

<210> 202
<211> 393
<212> DNA
<213> Homo sapiens

<400> 202
```
ttttagaagt gacatattgt tatattttca ccataggttt gctttaagaa atagtgctcc      60
cttcagaatg gaagaattta tctgcctctt atttgatgtg gatcagagct aagatggctg     120
actaaataaa catgggggac tggaatctcc ttggagatac tctggaggaa gttcacatcc     180
actccaccat gattggaaag atctggctca ccatcctgtt catatttcga atgcttgttc     240
tgggtgtagc agctgaagat gtctggaatg atgagcagtc tggcttcatc tcctgcaaag     300
aaacctaatt gctacggggg ccggaagagg aataggtgcg gctccgacag ccagaggggc     360
gggcatacgc agcctccctc ggctcagcct gct                                  393
```

<210> 203
<211> 395
<212> DNA
<213> Homo sapiens

<400> 203
```
taaaaactgg ctttaatgga cattaacaaa taatatacac tgatttatca cctttaagca      60
acaaaaacat gacttgtaat tattcaaata aggtaggatt tttctcttaa gtacacttct     120
taaaagtcat tcacaagaca actgggcatc cactaagacc aaggcactgt ggggggaggca     180
aacagcacaa catcctcacc tcaaggagct cagcctggga tgaagacaga cacacacaac     240
tccagcatga ggccaagggg tagcctgtta tgggatcaag tggtggcaga atcaagaagt     300
ggttctgaaa gtgttcttta gtcacagaga ccagtaggtt tgaaacccag tgatgttact     360
ttttaacttt gtgccttacc tactataagc ctcag                               395
```

82

```
<210>   204
<211>   115
<212>   DNA
<213>   Homo sapiens


<400>   204
tttaattgag acaaggtctc agtatattac taaggttggt ctcgaactct tgcgctcaag     60
gatactcctg tctccacctc ccaaagtgct gggactacat cacagctcac ttgaa         115

<210>   205
<211>   411
<212>   DNA
<213>   Homo sapiens


<400>   205
ttttgaattt acaaatgtat ctttatttat tttgtcttga acttcacgtc aatacagatt     60
ctgcattgct caactaatga atgcaggaag gactgcatga ggccagcacg gcacgtcctc    120
acaccagcag ttcttcttgg tctgagtcct ttcctggctg cagcagagag aacagagaaa    180
gcgcaacact gtgttcatgg tgctattgta attaatgtat tataattatt ttgtatcttc    240
tgttagatct tctgccttga ttcccagtgt ccaaatacaa aagtattgac tactgtccct    300
gatgtgaaga gcaggatcta ttgaagccga acacatcatc tttcagttcc aggtaggagt    360
gcagtaagaa gagttttctt acaggcatga tcgctgtgat ggataagtgt g             411

<210>   206
<211>   414
<212>   DNA
<213>   Homo sapiens


<400>   206
aaagagcttc taacagcttc tgtccattta ttggttggat gacaaatgaa aaagtttctt     60
tggccttgac aatctccatc aaagaaacca aataagcatg ttaaggaaac atacagtata    120
tgaacagtta attcttgtat tgcttggaca tcaataaatc taataaaaac gaccaagaat    180
agtcactcag ttttacaata tagaaggcag agaaaactct gacactccaa gttgtgaaga    240
caatgaaaca ttccagtact ccattagagg acttttttgta tctacagctg cctgtgcttt   300
gaaggtaaaa acccagaatt taaattcaaa catattcagt taatgcactt atgcatttta    360
caaatttttg ttctggtata gcatatgaaa gggagctata tctgcccca tttc           414

<210>   207
<211>   382
<212>   DNA
<213>   Homo sapiens


<400>   207
tttatatttt aacacatctt tattctcaca gtgctagtca acaacattgt tcacaatcac     60
aatcctctga gtggcacccc aaaattgaga aaggcagaga aatgaataat tcaataatgc    120
tgaaagtcat caatgtaatc aaaattccca agaacaggac agtaacagcc ttacactgac    180
tattttggtg agaataacca caaatgtagt tttgatctag gatgaaacca aatgtgagga    240
gaatgattcc agctattgct cccagggcac taagaaaatt cattattcgg ctcaatatta    300
tcagagtttc tgtggttttt cttttcactg caattaggag ggctccagaa ttaatgaaca    360
aaacagagcc ccagaatgga ta                                            382
```

83

```
<210>   208
<211>   252
<212>   DNA
<213>   Homo sapiens

<400>   208
tttacttcca tggattttaa tgttctaagc taagtaagaa tctcttcaat aaagtgagaa      60
ttaaaaggag aatggagcta ggagttgaga gaggcaacaa ataatgagag agcagaaagc     120
aaatccacaa aaaactgtca catgacagag gccagaatgg agctgatgca gctgcgtcat     180
ttcctacaga cctagttgac catgtggaga agaggcttga acaaatgggg acgttctcca     240
accttccaaa tc                                                         252

<210>   209
<211>   429
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   209
tttttttagtg tcagtagaag gtagctgtta tttattgttc tattctgggg taaaggtatc     60
agattctcaa agggattctt aatctagaaa gtttgcgaag agatggcaaa ggtgtttgaa     120
agctatcagg aaaccatcct cgcgtaaaac gaagcagcgc tacagaagtg ggctgccatg     180
ggaatcggga ggcccaggtt ccactgctaa cttgctgcag cttactgggt gattgtctct     240
cgcgagaaga cgggccgcgc cggcgatacg gattccgagc gagtggtggt ggtagtggtg     300
gtggtggcgg ccgagacgcg gcggccatat ttggtgaggc ctcgggagcg gcagacnngg     360
ttcagctggg agtagcgtct gccctttttc ccacccaccg tccgcatctg tgtgctgcgc     420
gaagaggca                                                            429

<210>   210
<211>   412
<212>   DNA
<213>   Homo sapiens

<400>   210
tttggtagaa attggcaagc taattctaaa attaaatgaa atgcaaagga ccaggaaaag     60
ccaagagact cttggagaag caacacagtg gaagactttc actatcagat agcaagacct     120
tcaagttatg agaatgaaga gagtgactta aagacttaca aagagaccaa caggacaaaa     180
aagaaagtcc agaaacatat ccacacatga atctttgact tatgacaaaa ttggctctgt     240
agagtagctg gaaagggaaa gtcttttaaa taaattgttc tggattaatt tgatatccat     300
ctggggaaaa aaaaaaacaa aaaacaatat tgacctctac ctcatgtcat acctaaaaat     360
caattccagg tggactgtag atttaaatgt aaaaggtaaa ataataaaac tc            412

<210>   211
<211>   234
<212>   DNA
<213>   Homo sapiens

<400>   211
```

84

```
tttttttttt tttttttttt ttttattta ctcagtgaat ttattgtaaa aataaagaaa        60
ctcaattatt ccagttaatg gatttcacgt taaatagttt aactttcaat gggctttctg       120
aagagctgtt cataggatga tatttggaag agtcctttcc ttaaggaaaa aaagggtgaa       180
caataaataa agagttactt gcgttaacgg tcacgttatt tcattaaaag agag            234
```

<210> 212
<211> 353
<212> DNA
<213> Homo sapiens

```
<400>  212
tttcttcatt ttcctagcaa ctaaaacgaa caaaaagaag tactgaaatg caggactgac        60
aacttaaaat aattccattt ttgtttctag ttttttttcct gaacgttaaa gacttaaacg       120
ataatcactg cacatagaaa ctaagtattt ttgtcttaat tgaaaattag ttattaactc       180
ataaaaagat ataaaatatt cttcaaagtt aaagccctaa atttaaattg gtttatgtaa       240
gaaatccgtt gacactgatg aattaccctc actaaggctg ggaggaggag aataatcttc       300
catgtcagaa tctgacggac ttcggtttcg ataacgacca ccacctgaac tcc             353
```

<210> 213
<211> 341
<212> DNA
<213> Homo sapiens

```
<400>  213
aggcaatcct ccctccttgg cctcccaaag tgttgggatt tcaggtgtga gccactctac        60
ctggctgaga cttgctctca tttttaaatt caaaaaatgt tttccataga tcggccgcct       120
gtggaaaaag gtgactcagg cctgtaatcc cagcactttg ggaggcctag gtgggtggat       180
cacctgaggt caggagttca agaccagcct ggccaacacg gtgaaactcc gcctctacta       240
aaaatagaac aattatctgg gcatggtggc aaatgcctgt gatcccagct attccggaga       300
ctgaggcagg agaatcactt tagcccatga gacaggggat g                         341
```

<210> 214
<211> 351
<212> DNA
<213> Homo sapiens

```
<400>  214
caggttcaag ttgaacagct cctctttaat caaagggaga acacagatgt atcaaacaga        60
gtaggaaaga aatgtatcaa aagacagtag gaaagaaagc ctttccttct tgaaaggctg       120
aggttgagag ggaaagctaa tttatcacta caactctatg gtagctttcc atgctaaatt       180
ttccctgcct cttttgtgat ttttgatat ggaagagtag gggttatatc ttctctgtaa       240
caattaggcc atatttcctt ataccaagta gaggtgctca aacactgtag tggtattaaa       300
gggctgagga gagtaactga agactggcat acagaactcc acctggagga c             351
```

<210> 215
<211> 417
<212> DNA
<213> Homo sapiens

```
<400>  215
ttttaatgtt gaagactcca ctcagtcatt tgagctccag gaagccttcc ctggccaccc        60
ataagttaag agaaaagccc ctcttctgag ctcccagagc acccacttca tacctatgct       120
```

85

```
atagaacaca ccgccaagga cggaaattat ccaaaggttt gtgtccattg attgccatgc      180
caggcatcca gctctgctga agcacgcagg ggccctgact tcctcattag gtattctcaa      240
cacctccacc agcagctggt aggcagcaga gctattgtta ctgagctgcc cacggaccaa      300
tggatctatg aatgaacctg aacgtcttcc ctggagaaaa gcacttgctt gtcaagggag      360
gaacaggggt ctgaaatgct aacccctgcc ctatagtatg ggtgtgcata cggtgca        417
```

<210>   216
<211>   454
<212>   DNA
<213>   Homo sapiens

<400>   216
```
tttatttta ttttttgaaca atgagaacac atggacacag gaaggggaac atcacactct       60
ggggactgtt gtggggtctt tagagggggg agggatagca ttaggagata tacctaatgt      120
taaatgacga gttaatgggt gcagcacacc aacatggcac acgtatacat atgtaacaca      180
cctgcacgtt gtcgacatgt accctaaaac ttaaagtata aaaaaaaaa gtcaggaaac       240
aacaggtgct ggagaggatg tggaaaaata ggaacacttt tacactgttg gtgggactgt      300
aaattagttt aagtattgtg gaagtcagtg tggcgattcc tcaggatct ggaactagaa       360
ataccatttg acctagccat cctattactg ggtatatacc caaaggatta taaatcatgc      420
tgctataaag acatgcacac gtatgtttat tgtg                                  454
```

<210>   217
<211>   387
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   217
```
gatccagctt attctttat tttcaagtcc attcttgggg ctggtgggga ggcaggagaa        60
tacccctccc taagccctta gtgtgtgccg agcttgcttt ntgatgttgg caggggaggg      120
gagacctggg tggtgnctga gttcccttta tcaaaccctt caatgggcac aaaattgagt      180
gcttnnttnn taggttttat ttnnnnatga atgtccaaat ctgtgtttcc ccctgccana      240
acagactgtg tggccagttg aaagtgtctt ggtttgtggt tcatctctcc ctcatttttct     300
tggaggcagg gcctgaganc cctgncanaa tctcctatgg ttntgaatcc acggcttctt      360
tttggacatt aaaggttgat ttgatgc                                          387
```

<210>   218
<211>   481
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   218
```
ctcgagactg aatcttgctc tgtcgcctag gctagagggc agtggcgcaa tctcagctca       60
```

86
```

```
ctgcaacctc tgcctcctgg gttcaagcga ttctcgtgct tcanccacct gagtacctgg      120
tattacaggt ggctgccacc atgcctggct aattctgtat tttttataga gacaggtatc      180
tcattatgct gcccaggctg gtcctgaact tctgagctca agcaattcac tcaccttggc      240
ctccccaaag tgctgggatt acaggtgtga gccactgcac ctggttgaga cactactttc      300
acacactttt acatttcaca cttctatgaa gacagggtct gcaatctggc aatgtctatg      360
atttagtggg aggtagaagg aggcccaggg acagaaacat aaactttcca tgtcaggatg      420
ttggctgtga caagcatgcc caagactttg gacatgattt ttctgttcta gatctgtttc      480
c                                                                      481

<210>    219
<211>    478
<212>    DNA
<213>    Homo sapiens


<400>    219
catggattca ctctattgcc caggctggag ggcagtggtg tggtcttggt tcactgcaac       60
ctccatttcc caggctcaag caattctcgt gcctcagcct cccaggtagt tgggattaca      120
gtcatgtact accatgcccg gctaattttt taatttcctg tagaggtggg tgtttgtcat      180
gttggctagg ctggtcttga actcctggcc tcaagtaatc tgcccatctt gacctcccag      240
agtgctagga ttacaggtgt aagccattgt gcccggcctc catgatttta gaaacaccgt      300
ttttctttac ttaatttttt cttaattaga aatgggccca gacatccaac aagcaattat      360
tacttaattt aaaaatttca ggattttaaa atatatgaaa actctattta caagcattta      420
tttttaattt attggagatg gagtctactc tgtcacccag gctggagtgc agtggagt       478

<210>    220
<211>    623
<212>    DNA
<213>    Homo sapiens


<220>
<221>    misc_feature
<223>    n=a,t,g or c


<400>    220
ccattgtcaa gaaatttaat atggcaccag gagatttgca taattgacct atttggcttt       60
ctgcatcaag tttggtgtcc tgttgcagaa gctgagcatt gacgggacag aggcataaac      120
tgcagcgctt gataaaatag agcccagtat tctgaggtta gtgaagaaaa cacaaagact      180
tgacagatgc actcccagat cgcatctcac agtcattcaa ggtttagggc aaagcatttn      240
catgtggagn ngnaccttna ccttntcccg nccagtcatg catcttggaa gttccttggc      300
taagtctgca gggaaggaga agcagcaggc ttgatttgca tcaataaaag cagcgatctg      360
tgctggccat gctaaccctg ttggctatta gggggtgggg gcactctgtc aaggggagtc      420
actgggacgg tgtaggattc agccttcaga gcctgctggc ctgaccgtag aaggaggaac      480
ctgcacacac cctgctggtt ttagttcacg agcagctatc aaagcctgtt agccatcctg      540
gttacctgct tgtgccagan agaacttact gtcccaggta agcncctaat tttttaagtc      600
ttagttcctg tcaaaggcca ctt                                              623

<210>    221
<211>    457
<212>    DNA
<213>    Homo sapiens


                                87
```

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 221
```
ttttttgtgt gaaaagcctt cattgtgcaa gcgtgcccan caaacaaaca ccaggtctgc    60
gctggccgaa gacgaagcgt cctccctgga gtcgggaaca agtcacctct gaccacacct   120
cctctgacgc catcacctcc tcctggcccc acccaagggc tcgacacaag ccccaaggtc   180
ggggggagag gggcggggcg gaaccgaggg cggaggcaag gtgggattcc aggaaggcct   240
tccgaagatg ggacggtggg tcctgtccct ccaggtagct tgtgggtgtg gacagcagga   300
cttgctggct cagtgtgggc acaaggacac tgtgccactg gttgagtgag tggtgaggga   360
ttggaggtgg ctcccagagg actccatctt gcatggccct ggccttgtgg cttccagnag   420
gcttgccctg gctgtgggta agccangagc anatgcg                            457
```

<210> 222
<211> 325
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 222
```
ttttttttttt tttttttttt ttttaatgtt aaaaatattt attttttttc cnaaaagatc    60
acacaaaagt tgggaagaga aggatgtcaa ttagactaca tcaaaatctg ggcagaggga   120
ggacaaagag ctgcctaaag aaactggtag ctggagcaaa ctgcagagnt caagatgacc   180
ctagtccacg gaaccagcag cccaggncag ccacnttcag gngcaccacc cgnggcacgg   240
cagggagagc aaagttgctg gccccantca ttcctccttt tcagggcagg agaggcagaa   300
gctcactntt tagacatgtt cttga                                         325
```

<210> 223
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 223
```
acagtaatgg anttnaaacc aaagtgatag ttctttatta tagcaaagtg atagtttttt    60
tatttaaaat aagttatttt ttacaacctc cttatataaa agatgtttat gaaagaaaaa   120
attgagtgtg tctcggtgcc attttttttaa tgcaatgaat gatatccatg aaaaaggaac   180
atctgaatct tttgttttaa aagacagtgc agggtatagg tggaatttat gggnggatac   240
atcccggata aatttgccat aatggaaatg agggagaggt ggtataataa ttttttttcta   300
ctgttatccc ntctagggcc ctgacttgct cngcatgggg gcccaagggg gnggt         355
```

<210> 224

88

<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 224

```
aaanaggagg aaaaaaaagt agatgactcc ctcaggttaa agagttgtgc tattcaacaa      60
ataaacttcc tcttccgttt cttctctctc ctcatctgtg agattcagtt gaacattatt     120
gaagcggggt cttggtttgc cgtctgggcc atatgccgga gatatctttt tttgttataa     180
tgccaaggag gcgcccattg tgagttacaa ggcactgcct cagtcccagc tttcggaaaa     240
tatccaccac gatctccatt ggggtgtggg tctgtcactg taaaaggggc tcatgtcaag     300
gaatgcttcg aagcttcaat gggccgaggg actttctgct ggggaagaga tggggggtnt     360
gctgtgcaaa acacacccccg aggaactgcc cacgntaccn tcttggtttt tcccgggggat    420
tttctntttg caa                                                        433
```

<210> 225
<211> 189
<212> DNA
<213> Homo sapiens

<400> 225

```
gacgcttgtc aacatttttt aatcacagca gcaaagacaa aggagcgatg gcacagcagg      60
ttctctgacc aaccctggaa atacttcatg tttctaaatg tgcttcctga ttttttccaga     120
gtcataaagc tgatgtgtgt gtggtgttgg ctgttttctt cacagtctca tgccagacac     180
acaacataa                                                             189
```

<210> 226
<211> 222
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 226

```
gacacttaac acagggcttt aatgnaacac catttagnaa caggacaaat tgaaaagtga      60
ggggtacttt gtggttaaga aaatggggga ccacatctgt tggagagtgg gcatttgaca     120
acaatgggcc aggtaccccg catgtaaaat caaaatntaa gggtcttttt aagggctgga     180
aaagttgctg ctggggcatt gcagttaatg ggtcagacat tt                        222
```

<210> 227
<211> 570
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c

<400> 227
tctttttca gatgtgcagg tntttatttc ctctccctca ctctgctcna acacccagca   60
taaggcacta cccccagatg ggagggaagg gagggcnact gtgaactcaa gtntgagggg   120
gtcatctgca nnaagaccgg agttgcttcc atgtcactct cctctcaaga gaagctgcta   180
tttcagggta aatggagtct gctctcatcc atggttaaaa gtggattgag acgntctaca   240
gaganttcca tcttcttttt aaggaacaca tccgaacgan ttcagaaggg aaattttgat   300
atttaaaant cagtgtctct cacttcccac tccatccncc acctcccttt ntaagctcag   360
agcacagcgt tcctacggtc cagccaggga atctttccag aaaggggntt gagagtttcg   420
ggcccctgat gggagcggct catttgctgg ccgtgaacgc tgggtttccc gtgatagctc   480
tcccaaggtt cagggcgtga ttgtcatgtg taccttcgag gnttttnacg gnctcagggt   540
catggcgtnc ggttcacgtg atattcgtag   570

<210>   228
<211>   179
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   228
ataagcctaa agaacacaag tagctaaagt atgggtatat atgctaatca tagagagaaa   60
agcaataaca ataggaaatg tggtcctgaa aataggcttg tgaagataaa tctacttcat   120
tctacccaaa ccctttaaga tacacattca ttngtaagaa tttaccaagc atctgccat   179

<210>   229
<211>   388
<212>   DNA
<213>   Homo sapiens

<400>   229
accaccaaaa tgccagaatt tattcaccaa gtgagcatcg ggtaacatcc atggatgaga   60
gtttaaacat ctcttggttg ctatggaggg tccaagaaga aaacaaaatc cattagtata   120
aaggtttgta tttgctgtga cctctattgt cttgagagac agagtagaca gaagaaataa   180
caaatgtgaa gtcctggaat atagatgagc ttgtgatgaa agacggaaca gagtgaacgg   240
tcagagctgt tggaggaaga aagcaggaag ggcaataaag gtccaagtgg tagccagagc   300
ctcggtttat tctagatgag aagggagatg gtggagtctt ttaagcagga gagaaacatg   360
ttctgagtta cattttttaa aaatgtaa   388

<210>   230
<211>   250
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

90

<400> 230

```
gtgatcagtc tcaagaatat tccattatat tccattgcct gcctcccca acttgtgctg      60
atattttaag gatgtgctca agagtatgaa gcagggtgct tttgtccctt tctctcctcc     120
ctagtaattc cctcctccct atcccatagc caagtagcca cccctcaaat nagccattcc     180
tttttgcttt catcaatggt ctctgtgaag ttggggtcgt tgttcatgat ggcggcgtcc     240
gcgctctctg                                                           250
```

<210>   231
<211>   3041
<212>   DNA
<213>   Homo sapiens

<400>   231

```
gaaaaagaga ggaagagaaa ccatttagag actgtgcaga tgtatatcaa gctggtttta      60
ataaaagtgg aatctacact attttatatta ataatatgcc agaacccaaa aaggtgtttt     120
gcaatatgga tgtcaatggg ggaggttgga ctgtaataca acatcgtgaa gatggaagtc     180
tagatttcca aagaggctgg aaggaatata aaatgggttt tggaaatccc tccggtgaat     240
attggctggg gaatgagttt attttttgcca ttaccagtca gaggcagtac atgctaagaa     300
ttgagttaat ggactgggaa gggaaccgag cctattcaca gtatgacaga ttccacatag     360
gaaatgaaaa gcaaaactat aggttgtatt taaaaggtca cactgggaca gcaggaaaac     420
agagcagcct gatcttacac ggtgctgatt tcagcactaa agatgctgat aatgacaact     480
gtatgtgcaa atgtgccctc atgttaacag gaggatggtg gtttgatgct tgtggcccct     540
ccaatctaaa tggaatgttc tatactgcgg gacaaaacca tggaaaactg aatgggataa     600
agtggcacta cttcaaaggg cccagttact ccttacgttc cacaactatg atgattcgac     660
ctttagattt ttgaaagcgc aatgtcagaa gcgattatga aagcaacaaa gaaatccgga     720
gaagctgcca ggtgagaaac tgtttgaaaa cttcagaagc aaacaatatt gtctcccttc     780
cagcaataag tggtagttat gtgaagtcac caaggttctt gaccgtgaat ctggagccgt     840
ttgagttcac aagagtctct acttggggtg acagtgctca cgtggctcga ctatagaaaa     900
ctccactgac tgtcgggctt taaaaaggga agaaactgct gagcttgctg tgcttcaaac     960
tactactgga ccttatttg gaactatggt agccagatga taaatatggt taatttcatg    1020
taaaacagaa aaaaagagtg aaaaagagaa tatacatgaa gaatagaaac aagcctgcca    1080
taatcctttg gaaaagatgt attataccag tgaaaaggcg ttatatctat gcaaacctac    1140
taacaaatta tactgttgca caattttgat aaaaatttag aacagcattg tcctctgagt    1200
tggttaaatg ttaatggatt tcagaagcct aattccagta tcatacttac tagttgattt    1260
ctgcttaccc atcttcaaat gaaaattcca tttttgtaag ccataatgaa ctgtagtaca    1320
tggacaataa gtgtgtggta gaaacaaact ccattactct gattttgat acagttttca    1380
gaaaaagaaa tgaacataat caagtaagga tgtatgtggt gaaaacttac cacccccata    1440
ctatggtttt catttactct aaaaactgat tgaatgatat ataaatatat ttatagcctg    1500
agtaaagtta aaagaatgta aaatatatca tcaagttctt aaaataatat acatgcattt    1560
aatatttcct ttgatattat acaggaaagc aatattttgg agtatgttaa gttgaagtaa    1620
aaccaagtac tctggagcag ttcattttac agtatctact tgcatgtgta tacatacatg    1680
taacttcatt attttaaaaa tattttaga actccaatac tcaccctgtt atgtcttgct    1740
aatttaaatt ttgctaatta actgaaacat gcttaccaga ttcacactgt tccagtgtct    1800
ataaagaaa cactttgaag tctataaaaa ataaaataat tataaatatc attgtacata    1860
gcatgtttat atctgcaaaa aacctaatag ctaattaatc tggaatatgc aacattgtcc    1920
ttaattgatg caaataacac aaatgctcaa agaaatctac tatatccctt aatgaaatac    1980
atcattcttc atatatttct ccttcagtcc attcccttag gcaattttta attttaaaa    2040
attattatca ggggagaaaa attggcaaaa ctattatatg taagggatat atatatacaa    2100
```

91

```
aaagaaaatt aatcatagtc acctgactaa gaaattctga ctgctagttg ccataaataa   2160
ctcaatggaa atattcctat gggataatgt attttaagtg aattttttggg gtgcttgaag   2220
ttactgcatt attttatcaa gaagtcttct ctgcctgtaa gtgtccaagg ttatgacagt   2280
aaacagtttt tattaaaaca tgagtcacta tgggatgaga aaattgaaat aaagctactg   2340
ggcctcctct cataaaagag acagttgttg gcaaggtagc aataccagtt tcaaacttgg   2400
tgacttgatc cactatgcct taatggtttc ctccatttga gaaaataaag ctattcacat   2460
tgttaagaaa aatacttttt aaagtttacc atcaagtctt ttttatattt atgtgtctgt   2520
attctacccc ttttttgcctt acaagtgata tttgcaggta ttataccatt tttctattct   2580
tggtggcttc ttcatagcag gtaagcctct ccttctaaaa acttctcaac tgttttcatt   2640
taagggaaag aaaatgagta ttttgtcctt ttgtgttcct acagacactt tcttaaacca   2700
gttttttggat aaagaatact atttccaaac tcatattaca aaaacaaaat aaaataataa   2760
aaaaagaaag catgatattt actgttttgt tgtctgggtt tgagaaatga aatattgttt   2820
ccaattattt ataataaatc agtataaaat gttttatgat tgttatgtgt attatgtaat   2880
acgtacatgt ttatggcaat ttaacatgtg tattctttttc atttaattgt ttcagaatag   2940
gataattagg tattcgaatt ttgtctttaa aattcatgtg gtttctatgc aaagttcttc   3000
atatcatcac aacattattt gatttaaata aaattgaaag t                        3041
```

<210>   232
<211>   1311
<212>   DNA
<213>   Homo sapiens

<400>   232
```
acctcctgtg gccagggctt ctatgggctg tggcttatgt ctcatgtgtc attctccagg     60
gaagcgccgc cgagctgcta tggacttccc tggagccaag gtcattgttc cccagctgaa    120
gggcagggtg cagcggaggc gtgtggggtt gatgtgtgag ggggccccca tgcggcaca    180
cagtcccatc ctgaacatgg agggtaccaa gattggtagg tggaccaggg aagctgggaa    240
acccttgtct cttcccagga gggtgggggc actggcaggg tggtgctgat gcgtggctta    300
tgcttgcttg acaggtactg tgactagtgg ctgcccctcc ccctctctga agaagaatgt    360
ggcgatgggt tatgtgccct gcgagtacag tcgtccaggg acaatgctgc tggtagaggt    420
gcggcggaag cagcagatgg ctgtagtcag caagatgccc tttgtgccca caaactacta    480
taccctcaag tgaagctggc tcagggtggg gctgtccctt ccaggagttt tgcccctaca    540
aggggttagt caagaagctg aggcagaact cactgggggt gggcagttaa ggtggaggct    600
gattctaatt gtctggttga ggggccacac cacctattcc ccccacctaa ctcatgccat    660
tccagcttcc ttcaggaccc tgcttctgag tgacggacca gctcacacaa tgtcttgttt    720
cagtccatga tcccactgac ctactcttgc ctgctggagg gtaatgagaa gctttggttc    780
tgccatctct cccactctgc caggtgctgg ctgtggagca aaggctcacc tttgtggaga    840
ggataaaacc tkcccaacct acctcaccat ggttttttcac attgcaaagg gtaataacat    900
gggcagtgcg gacttaggct accccctcca gtttgctttc cgtaaatgca aattgtcctt    960
actgcaagtc aggaatgatt gctgactcac agtagggctg ctatgcctgt gtgtaaactt   1020
ggggatggct gagggaacat agactcactc ttccacattc ccaagttggt ctagtgtgct   1080
gcccagtagc aaaccatggc agactcacca cctattctga gttccagggc tgctgtaggg   1140
cagggtgggc ttcctcccag acttgcctta ccctgggctg atctttgccc ctggtatgca   1200
ttaatggact ccactgaatc ctgaaaaaaa aattaaactt ccttcttact tgccagtctc   1260
tagcttcatt gttctctgtt cacagggttc ctgaaatgcc aacccaatgc c             1311
```

<210>   233
<211>   1206
```

<212> DNA
<213> Homo sapiens

<400> 233
```
gttgctgtcg gggagttgaa acctaatttt gtggcgtaga gctatgcagc ttgaaatcca   60
agtagcacta aattttatta tttcgtattt gtacaataag cttcccagga gacgtgtcaa   120
catttttggt gaagaacttg aaagacttct taagaagaaa tatgaagggc actggtatcc   180
tgaaaagcca tacaaaggat cggggtttag atgtatacac ataggggaga aagtggaccc   240
agtgattgaa caagcatcca aagagagtgg tttggacatt gatgatgttc gtggcaatct   300
gccacaggat cttagtgttt ggatcgaccc atttgaggtt tcttaccaaa ttggtgaaaa   360
gggaccagtg aaggtgcttt acgtggatga taataatgaa aatggatgtg agttggataa   420
ggagatcaaa aacagcttta acccagaggc ccaggttttt atgcccataa gtgacccagc   480
ctcatcagtg tccagctctc catcgcctcc ttttggtcac tctgctgctg taagccctac   540
cttcatgccc cggtccactc agcctttaac ctttaccact gccacttttg ctgccaccaa   600
gttcggctct accaaaatga agaatagtgg ccgtagcaac aaggttgcac gtacttctcc   660
catcaacctc ggcttgaatg tgaatgacct cttgaagcag aaagccatct cttcctcaat   720
gcactctctg tatgggcttg gcttgggtag ccagcagcag ccacagcaac agcagcagcc   780
agcccagccg ccaccgccac caccaccacc acagcagcaa caacagcaga aacctctgc   840
tctttctcct aatgccaagg aatttatttt tcctaatatg cagggtcaag gtagtagtac   900
caatggaatg ttcccaggtg acagcccct taacctcagt cctctccagt acagtaatgc   960
ctttgatgtg tttgcagcct atggaggcct caatgagaag tcttttgtag atggcttgaa   1020
ttttagctta aataacatgc agtattctaa ccagcaattc cagcctgtta tggctaacta   1080
aaaaaaagaa aatgtatcgt acaagttaaa atgcacgggc ccaaggggga ttttttttt   1140
cacctccttg agaattttt tttttttaag cttatagtaa ggatacattc aagcttgggt   1200
taaaaa   1206
```

<210> 234
<211> 3058
<212> DNA
<213> Homo sapiens

<400> 234
```
gccccacagt gagaggaagg aaggcaacag tcgccagcag ccgatgtgaa gaccggactc   60
cgtgcgcccc tcgccgcctc tgcctggcca catcgatgtt gtgtccgccg cctgctcgcc   120
cggatcacga tgaagccccc aaggcctgtc cgtacctgca gcaaagttct cgtcctgctt   180
tcactgctgg ccatccacca gactactact gccgaaaaga atggcatcga catctacagc   240
ctcaccgtgg actccagggt ctcatcccga tttgcccaca cggtcgtcac cagccgagtg   300
gtcaataggg ccaatactgt gcaggaggcc accttccaga tggagctgcc caagaaagcc   360
ttcatcacca acttctccat gatcatcgat ggcatgacct acccagggat catcaaggag   420
aaggctgaag cccaggcaca gtacagcgca gcagtggcca agggaaagag cgctggcctc   480
gtcaaggcca ccgggagaaa catggagcag ttccaggtgt cggtcagtgt ggctcccaat   540
gccaagatca cctttgagct ggtctatgag gagctgctca agcggcgttt gggggtgtac   600
gagctgctgc tgaaagtgcg gcccccagcag ctggtcaagc acctgcagat ggacattcac   660
atcttcgagc cccagggcat cagctttctg gagacagaga gcaccttcat gaccaaccag   720
ctggtagacg ccctcaccac ctggcagaat aagaccaagg ctcacatccg gttcaagcca   780
acactttccc agcagcaaaa gtccccagag cagcaagaaa cagtcctgga cggcaacctc   840
attatccgct atgatgtgga ccgggccatc tccggggggct ccattcagat cgagaacggc   900
tactttgtac actactttgc ccccgagggc ctaaccacaa tgcccaagaa tgtggtcttt   960
gtcattgaca agagcggctc catgagtggc aggaaaatcc agcagacccg ggaagcccta   1020
```

93

```
atcaagatcc tggatgacct cagccccaga gaccagttca acctcatcgt cttcagtaca    1080
gaagcaactc agtggaggcc atcactggtg ccagcctcag ccgagaacgt gaacaaggcc    1140
aggagctttg ctgcgggcat ccaggccctg ggagggacca acatcaatga tgcaatgctg    1200
atggctgtgc agttgctgga cagcagcaac caggaggagc ggctgcccga agggagtgtc    1260
tcactcatca tcctgctcac cgatggcgac cccactgtgg gggagactaa ccccaggagc    1320
atccagaata acgtgcggga agctgtaagt ggccggtaca gcctcttctg cctgggcttc    1380
ggtttcgacg tcagctatgc cttcctggag aagctggcac tggacaatgg cggcctggcc    1440
cggcgcatcc atgaggactc agactctgcc ctgcagctcc aggacttcta ccaggaagtg    1500
gccaacccac tgctgacagc agtgaccttc gagtacccaa gcaatgccgt ggaggaggtc    1560
actcagaaca acttccggct cctcttcaag ggctcagaga tggtggtggc tgggaagctc    1620
caggaccggg ggcctgatgt gctcacagcc acagtcagtg gaagctgcc tacacagaac    1680
atcactttcc aaacggagtc cagtgtggca gagcaggagg cggagttcca gagccccaag    1740
tatatcttcc acaacttcat ggagaggctc tgggcatacc tgactatcca gcagctgctg    1800
gagcaaactg tctccgcatc cgatgctgat cagcaggccc tccggaacca agcgctgaat    1860
ttatcacttg cctacagctt tgtcacgcct ctcacatcta tggtagtcac caaacccgat    1920
gaccaagagc agtctcaagt tgctgagaag cccatggaag gcgaaagtag aaacaggaat    1980
gtccactcag gttccacttt cttcaaatat tatctccagg gagcaaaaat accaaaacca    2040
gaggcttcct tttctccaag aagaggatgg aatagacaag ctggagctgc tggctcccgg    2100
atgaatttca gacctggggt tctcagctcc aggcaacttg gactcccagg acctcctgat    2160
gttcctgacc atgctgctta ccacccccttc cgccgtctgg ccatcttgcc tgcttcagca    2220
ccaccagcca cctcaaatcc tgatccagct gtgtctcgtg tcatgaatat gaaaatcgaa    2280
gaaacaacca tgacaaccca aaccccagcc cccatacagg ctccctctgc catcctgcca    2340
ctgcctgggc agagtgtgga gcggctctgt gtggacccca gacaccgcca ggggccagtg    2400
aacctgctct cagaccctga gcaaggggtt gaggtgactg gccagtatga gagggagaag    2460
gctgggttct catggatcga agtgaccttc aagaaccccc tggtatgggt tcacgcatcc    2520
cctgaacacg tggtggtgac tcggaaccga agaagctctg cgtacaagtg gaaggagacg    2580
ctattctcag tgatgcccgg cctgaagatg accatggaca agacgggtct cctgctgctc    2640
agtgacccag acaaagtgac catcggcctg ttgttctggg atggccgtgg ggaggggctc    2700
cggctccttc tgcgtgacac tgaccgcttc tccagccacg ttggagggac ccttggccag    2760
ttttaccagg aggtgctctg gggatctcca gcagcatcag atgacggcag acgcacgctg    2820
agggttcagg gcaatgacca ctctgccacc agagagcgca ggctggatta ccaggagggg    2880
cccccgggag tggagatttc ctgctggtct gtggagctgt agttctgatg gaaggagctg    2940
tgcccaccct gtacacttgg cttccccctg caactgcagg gccgcttctg gggcctggac    3000
caccatgggg aggaagagtc ccactcatta caaataaaga aaggtggtgt gagcctga     3058
```

<210>   235
<211>   4517
<212>   DNA
<213>   Homo sapiens

<400>   235
```
ctgattccat accagagggg ctcaggatgc tgttgctggg agctgttcta ctgctattag    60
ctctgcccgg gcatgaccag gaaaccacga ctcaagggcc cggagtcctg cttcccctgc    120
ccaagggggc ctgcacaggt tggatggcgg gcatcccagg gcatccgggc cataatgggg    180
ccccaggccg tgatggcaga gatggcaccc ctggtgagaa gggtgagaaa ggagatccag    240
gtcttattgg tcctaaggga gacatcggtg aaaccggagt acccggggct gaaggtcccc    300
gaggctttcc gggaatccaa ggcaggaaag gagaacctgg agaaggtgcc tatgtatacc    360
gctcagcatt cagtgtggga ttggagactt acgttactat ccccaacatg cccattcgct    420
ttaccaagat cttctacaat cagcaaaacc actatgatgg ctccactggt aaattccact    480
```

94

```
gcaacattcc tgggctgtac tactttgcct accacatcac agtctatatg aaggatgtga   540
aggtcagcct cttcaagaag gacaaggcta tgctcttcac ctatgatcag taccaggaaa   600
ataatgtgga ccaggcctcc ggctctgtgc tcctgcatct ggaggtgggc gaccaagtct   660
ggctccaggt gtatgggggaa ggagagcgta atggactcta tgctgataat gacaatgact   720
ccaccttcac aggctttctt ctctaccatg acaccaactg atcaccacta actcagagcc   780
tcctccaggc caaacagccc caaagtcaat taaaggcttt cagtacggtt aggaagttga   840
ttattattta gttggaggcc tttagatatt attcattcat ttactcattc atttattcat   900
tcattcatca agtaacttta aaaaaatcat atgctatgtt cccagtcctg gggagcttca   960
caaacatgac cagataactg actagaaaga agtagttgac agtgctattt tgtgcccact  1020
gtctctcctg atgctcatat caatcctata aggcacaggg aacaagcatt ctcctgtttt  1080
tacagattgt atcctgaggc tgagagagtt aagtgaatgt ctaaggtcac acagtattaa  1140
gtgacagtgc tagaaatcaa acccagagct gtggactttg ttcactagac tgtgcccttt  1200
tatagaggta catgttctct ttggagtgtt ggtaggtgtc tgtttcccac ctcacctgag  1260
agccattgaa tttgccttcc tcatgaatta aaacctcccc caagcagagc ttcctcagag  1320
aaagtggttc tatgatgaag tcctgtcttg gaaggactac tactcaatgg cccctgcact  1380
actctacttc ctcttaccta tgtcccttct catgcctttc cctccaacgg ggaaagccaa  1440
ctccatctct aagtgctgaa ctcatccctg ttcctcaagg ccacctggcc aggagcttct  1500
ctgatgtgat atccactttt ttttttttt gagatggagt ctcactctgt cacccaggct  1560
ggagtacagt gacacgacct cggctcactg cagcctcctt ctcctgggtc caagcaatta  1620
ttgtgcctca gcctcccgag tagctgagac ttcaggtgca ttccaccaca catggctaat  1680
ttttgtattt ttagtagaaa tggggtttcg tcatgttggc caggctggtc tcgaactcct  1740
ggcctaggtg atccacccgc ctcgacctcc caaagtgctg ggattacagg catgagccac  1800
catgcccagt cgatatctca cttttttatt tgccatggat gagagtcctg ggtgtgagga  1860
acacctccca ccaggctaga ggcaactgcc caggaaggac tgtgcttccg tcacctctaa  1920
atcccttgca gatccttgat aaatgcctca tgaagaccaa tctcttgaat cccatatcta  1980
cccagaatta actccattcc agtctctgca tgtaatcagt tttatccaca gaaacatttt  2040
cattttagga aatccctggt ttaagtatca atccttgttc agctggacaa tatgaatctt  2100
ttccactgaa gttagggatg actgtgattt tcagaacacg tccagaattt ttcatcaaga  2160
aggtagcttg agcctgaaat gcaaaaccca tggaggaatt ctgaagccat tgtctccttg  2220
agtaccaaca gggtcaggga agactgggcc tcctgaattt attattgttc tttaagaatt  2280
acaggttgag gtagttgatg gtggtaaaca ttctctcagg agacaataac tccagtgatg  2340
tttttcaaag attttagcaa aaacagagta aatagcattc tctatcaata tataaattta  2400
aaaaactatc ttttttgctta cagtttttaaa ttctgaacaa tttctcttat atgtgtattg  2460
ctaatcatta aggtattatt ttttccacat ataaagcttt gtcttttttgt tgttgttgtt  2520
gttttttaaga tggagtttcc ctctgttgcc aggctagagt gcagtggcat gatctcggct  2580
tactgcaacc tttgcctccc aggtttaagc gattcttctg cctcagcctc ccgagtagct  2640
gggaccacag gtgcctacca ccatgccagg ctaattttttg tatttttagt aaagacaggg  2700
tttcaccata ttggccaggc tggtctcgaa ctcctgacct tgtgatctgc ccgcctccat  2760
tgtgttgtta tttgtgagaa agatagatat gaggtttaga gagggatgaa gaggtgagag  2820
taagccttgt gttagtcaga actctgtgtt gtgaatgtca ttcacaacag aaaacccaaa  2880
atattatgca aactactgta agcaagaaaa ataaaggaaa aatggaaaca tttattcctt  2940
tgcataatag aaattaccag agttgttctg tctttagata aggtttgaac caaagctcaa  3000
aacaatcaag acccttttct gtatgtcctt ctgttctgcc ttccgcagtg taggctttac  3060
cctcaggtgc tacacagtat agttctaggg tttccctccc gatatcaaaa agactgtggc  3120
ctgcccagct ctcgtatccc caagccacac catctggcta aatggacatc atgtttctg  3180
gtgatgccca aagaggagag aggaagctct ctttcccaga tgccccagca agtgtaacct  3240
tgcatctcat tgctctggct gagttgtgtg cctgtttctg accaatcact gagtcaggag  3300
```

95

```
gatgaaatat tcatattgac ttaattgcag cttaagttag gggtatgtag aggtattttc   3360
cctaaagcaa aattgggaca ctgttatcag aaataggaga gtggatgata gatgcaaaat   3420
aatacctgtc cacaacaaac tcttaatgct gtgtttgagc tttcatgagt ttcccagaga   3480
gacatagctg gaaaattcct attgatttc tctaaaattt caacaagtag ctaaagtctg    3540
gctatgctca cagtctcaca tctggtgggg gtgggctcct tacagaacac gctttcacag   3600
ttaccctaaa ctctctgggg cagggttatt cctttgtgga accagaggca cagagacagt   3660
caactgaggc ccaacagagg cctgagagaa actgaggtca agatttcagg attaatggtc   3720
ctgtgatgct ttgaagtaca attgtggatt tgtccaattc tctttagttc tgtcagcttt   3780
tgcttcatat attttagcgc tctattatta gatatataca tgtttagtat tatgtcttat   3840
tggtgcattt actctcttat cattatgtaa tgtccttctt tatctgtgat aattttctgt   3900
gttctgaagt ctactttgtc taaaaataac atacgcactc aacttccttt tctttcttcc   3960
ttcctttctt tcttccttcc tttctttctc tctctctctt tccttccttc cttcctcctt   4020
ttctctctct ctctctctct ctctcttttc ttgacagact ctcgttctgt ggccctggct   4080
ggagttcagt ggtgtgatct tggctcactg ctacctctac catgagcaat tctcctgcct   4140
cagcctccca agtagctgga actacaggct catgccactg cgcccagcta attttgtat    4200
ttttcgtaga gacggggttt caccacattc gtcaggttgg tttcaaactc ctgactttgt   4260
gatccacccg cctcggcctc ccaaagtgct gggattacag gcatgagcca tcacacctgg   4320
tcaactttct tttgattagt gtttttgtgg tatatctttt tccatcatgt tactttaaat   4380
atatctatat tattgtattt aaaatgtgtt tcttacagac tgcatgtagt tgggtataat   4440
ttttatccag tctaaaaata tctgtctttt aattggtgtt tagacaattt atatttaata   4500
aaatggtgga atttaaa                                                  4517

<210>   236
<211>   2383
<212>   DNA
<213>   Homo sapiens

<400>   236
aaaaaaaaaa aaaaaaaaaa caccagtttt tccaacatct aattgagctt ttgattaatt     60
ccgtgtacca gattctactg aagaaaggta gccatggaag agaatatgga agagggacag    120
acacaaaaag ggtgttttga atgctgtatc aaatgcctgg ggggcattcc ctatgcctct    180
ctgattgcca ccatcctgct ctatgcgggt gttgccctgt tctgtggctg cggtcatgaa    240
gcgctttctg gaactgtcaa cattctgcaa acctactttg agatggcaag aactgctgga    300
gacacactgg atgttttac catgattgac atctttaagt atgtgatcta cggcatcgca     360
gctgcgttct ttgtgtatgg cattttgctg atggtggaag gtttcttcac aactggggcc    420
atcaaagatc tctatgggga tttcaaaatc accacttgtg gcagatgtgt gagcgcttgg    480
ttcattatgc tgacatatct ttttcatgttg gcctggctgg gagtcacggc tttcacctca   540
ctgccagttt acatgtactt caatctgtgg accatctgcc ggaacaccac attagtggag    600
ggagcaaatc tctgcttgga ccttcgtcag tttggaattg tgacaattgg agaggaaaag    660
aaaatttgta ctgtctctga gaatttcttg aggatgtgcg aatctactga gctgaacatg    720
accttccact tgtttattgt ggcacttgct ggagctgggg cagcagtcat tgctatggtt    780
cactacctta tggttctgtc tgccaactgg gcctatgtga aagacgcctg ccggatgcag    840
aagtatgaag acatcaagtc gaaggaagag caagagcttc atgacatcca ctctactcgc    900
tccaaagagc ggctcaatgc atacacataa atgcatcttc ctgttctttc taccatttga    960
atgcattggt gtttaactaa gggccatcca accatccaac ctttaaaaaa caaaacgaaa   1020
gtgcttctca tcaatgatat gtaaggtgac ttatgaatca cctgagtaca attctttgtt   1080
gtttagcact taaatttccc aatttattaa attgatgtaa atcagatctt ttctacaagc   1140
tcctatccag cctttttttt gaaatttctc aaactcattt actagttctg taaaatcaaa   1200
gatactaaca ttgtcaaatg caaagatttg tttgattttt aaccacttcc catgtgttat   1260
```

96

```
acataacacc ttttgcatta tgtcttatgt tttgaaaaga aaatagcctt ttatactttt    1320
tagttttgat ttcggtaact agtttaacta caggtaacct tcaaaggacc attgtacatt    1380
atgaacaata gatagagatt acatcttgat gactcttgaa atatggaaat tttgtctgaa    1440
gatcagtggc catattactg taggccctgg ttcatgtttt catcaatcta aggtgcaatt    1500
tctaaatttg taagagtagg tttaaaaaaa aaagtgcttc ttatctttgt taacattgta    1560
ctttttccttg atgttcttaa aaggtatttc cctcagatta ctcatgttta tgttgtgagc    1620
atgtagaaac agtaatgcta atgcatggct agttgccttt ttaagattgt gacaccaggc    1680
ttacctttta aagtttagta tatagagaca attttaatgg aaataactac tgtagactat    1740
tgaagaatga tctctttgtg atttaagaag tggctggatt ggaactttta atatgctaat    1800
gtggaaaatt aattaccttt atgaaggtgg tttattacaa ataagcacac taacccctcg    1860
gaagttgttt tacctacttt aaaagtttta atggattgca cctctgtaaa ctattcctaa    1920
aatgtgtatg atatatttga aaaggcttcc attaatataa tagctttgct tgcagccttc    1980
caatctatgt tggtttacct gtagtgtttt ataaagtgtg gtcagagggc cctatagaat    2040
gtattgtttg aaagtgtagt gatatatttg tgtttttatt tcaagtaagt cattttaacc    2100
gaatgttcat tcatattcat ttataaaaag tacctgtatc aaaggaattt taacaaagag    2160
caatcagtat tattggacca aatttggtgt ttgttttcac cttgacgctc ttcttttcat    2220
tatttctaat gctacaagaa tgctgtaaag tgtcttctaa aatgatgtag cctgacaaga    2280
cattttttttc agtgtataaa actaggtagt attgtgcact gatttgacca ttgtgaaatc    2340
ctttctcagt gtaactgcat ttctaataaa aatttattga gtg    2383
```

<210> 237
<211> 5022
<212> DNA
<213> Homo sapiens

<400> 237
```
cggacatggc tgcggccccc ggaggagggg acgtgaagtg aggaggggggt tgggaggggga    60
gaggacgcgg gcgaggaaga ccagccccgg ggccccgatg ttgtgactgt gacagactca    120
ctggggtttg tacatgctgg ggaggagcct tcctttcagg ggtgaccaca ttcatctggg    180
catgcctgca gtactcttgg cccatggacc tgaaggagaa gcacctgggc gagcctccct    240
cagccctggg cctgtccacg cggaaggccc tcagcgtcct gaaggagcag ctggaggcag    300
tgctggaagg acatctcagg gagcggaaga agtgtctgac gtggaaggag gtgtggagaa    360
gcagcttcct ccaccacagt aaccgctgct cctgcttcca ctggccgggg gcctcactca    420
tgctactggc cgtgctgctg ctgctgggct gctgcggggg acagccagcc gggagccgtg    480
gggtgggggct ggtgaatgcc tcggccttgt tcctgttact gcttctcaac cttgtgctca    540
tcgggcggca agaccggctg aagcgtcggg aggtagagcg gaggctgcga gggatcattg    600
accaaatcca agatgccctc agggatggca gggagatcca gtggcccagt gccatgtatc    660
cagacctcca catgcctttt gcgccatcct ggtccttgca ctgggcctac agagacggac    720
acctggtcaa cctgccagtc agcctgctgg ttgaaggaga catcatagct ttgaggcctg    780
gccaggaatc gtttgcttct ctgaggggga tcaaggatga cgagcacatc gtcctggagc    840
cgggagacct cttcccccccc ttctcccctc caccctcacc ccggggagaa gtggagagag    900
ggccacagag cccccagcag caccggcttt tccgtgtcct tgagaccccct gtgattgaca    960
acatcagatg gtgcctggac atggccctgt cccgaccagt cactgccctg gacaatgagc    1020
ggttcacagt gcagtcggtg atgctacact atgctgtgcc cgtggtcctg gccggcttcc    1080
tcatcaccaa tgccctgcgc ttcatcttca gtgccccggg ggtcacttcc tggcagtaca    1140
ccctcctcca gctccaggtg aatggcgtcc tgcccatcct cccccctgctc tttccagtcc    1200
tctgggttct ggcaactgcc tgtggagagg cccgtgtcct ggcccagatg agcaaggcct    1260
cacccagctc cctgctggct aagttctcag aggatactct cagcagctat acggaggctg    1320
```
```
                                  97
```

```
tctcctctca ggaaatgctg cgctgcattt ggggccactt cctgagggtg ctcgggggga    1380
catcgccaac gctgagccac agttccagcc tgctgcacag cctgggctct gtcacggtcc    1440
tgtgctgtgt ggacaaacag gggatcctgt catggccaaa tcccagccca gagactgtac    1500
tgttcttcag cgggaaggtg gagccccctc acagcagcca tgaggacctc accgatggcc    1560
tatccacccg ctccttctgc catcccgagc cccatgaacg agacgccctc ctggctggct    1620
ccctgaacaa caccctgcac ctttccaatg agcaggagcg tggcgactgg cctggcgagg    1680
ctcccaagcc ccccgagccc tattcacacc acaaagcgca tggccgcagc aaacacccat    1740
ctggctccaa cgtgagcttc agcagggaca ccgagggtgg tgaagaagag cccagcaaga    1800
cccagcctgg gatggagagc gacccctacg aagcagagga ctttgtgtgt gactaccacc    1860
tggagatgct gagcctgtcc caggaccagc agaacccctc ctgcatccag tttgatgact    1920
ccaactggca gctgcacctc acctccctca aacccctggg cctcaatgtg ctgctgaacc    1980
tgtgtgatgc cagcgtcacc gagcgcctgt gccgattctc cgaccacctg tgcaacattg    2040
ccctgcaaga gagccacagc gccgtgctgc ccgtccatgt gccctggggc ctctgcgagc    2100
ttgcccgcct cattggcttc actcctgggg ccaaggagct tttcaagcag gagaaccatc    2160
tggcgctgta ccgcctcccc agtgccgaga caatgaagga gacatcgctg gggcggctct    2220
cctgtgtcac caagcggcgg cctcccctca gccacatgat cagcctcttc attaaagaca    2280
ccaccaccag cacagagcag atgctgtccc atggcaccgc tgatgtggtc ttagaggcct    2340
gcacagactt ctgggacgga gctgacatct accctctctc gggatctgac agaaagaaag    2400
tgctggactt ctaccagcga gcctgcctgt ctgggtattg ctctgccttc gcctacaagc    2460
ccatgaactg cgccctgtcc tctcagctca atggcaagtg catcgagctg gtacaggtgc    2520
ccggccaaag cagcatcttc accatgtgcg agctgcccag caccatcccc atcaagcaga    2580
acgcccgccg cagcagctgg agctctgacg aagggatcgg ggaggtgctg gagaaggaag    2640
actgcatgca ggccctgagc ggccagatct tcatgggcat ggtgtcctcc cagtaccagg    2700
cccggctgga catcgtgcgc ctcattgatg ggcttgtcaa cgcctgcatc cgctttgtct    2760
acttctcttt ggaggatgag ctcaaaagca aggtgtttgc agaaaaaatg ggcctggaga    2820
caggctggaa ctgccacatc tccctcacac ccaatggtga catgcctggc tccgagatcc    2880
cccctccag ccccagccac gcaggctccc tgcatgatga cctgaatcag gtgtcccgag    2940
atgatgcaga agggctcctc ctcatggagg aggagggcca ctcggacctc atcagcttcc    3000
agcctacgga cagcgacatc cccagcttcc tggaggactc caaccgggcc aagctgcccc    3060
ggggtatcca ccaagtgcgg ccccacctgc agaacattga caacgtgccc ctgctagtgc    3120
cccttttcac cgactgcacc ccagagacca tgtgtgagat gataaagatc atgcaagagt    3180
acggggaggt gacctgctgc ctgggcagct ctgccaacct gcggaacagc tgcctcttcc    3240
tccagagcga catcagcatt gccctggatc ccctgtaccc atcccgttgc tcctgggaga    3300
cctttggcta cgccaccagc atcagcatgg cccaggcctc ggatggcctt tctcccctgc    3360
agctgtcagg gcagctcaac agcctgccct gttccctgac cttttcgccag gaggagacca    3420
tcagcatcat ccggcttatc gaacaggctc ggcatgccac ctatggcatc cgtaagtgct    3480
tcctcttcct gctgcagtgc cagctgactc ttgtggtcat ccagttcctt tcttgcctgg    3540
tccagctgcc gccactcctg agtaccaccg acatcctgtg gctgtcctgc ttttgctacc    3600
ctctgctcag catctctctg ctggggaagc cccccatag ctccatcatg tctatggcaa    3660
cggggaaaaa cctccagtcc attcccaaga agacccagca ctacttcctg ctctgcttcc    3720
tgctcaagtt cagcctcacc atcagctcct gcctcatctg ctttggcttc acactgcaga    3780
gcttctgtga cagctcccgg gaccgcaacc tcaccaactg ctcctccgtc atgctgccca    3840
gcaacgacga cagggctcca gcctggtttg aggactttgc caatggactg ctgtcggctc    3900
agaagctcac ggccgccctg attgtcctgc acactgtctt catttccatc acccatgtgc    3960
atcgcaccaa gcccctgtgg agaaagagcc ccttgaccaa cctctggtgg gccgtgacag    4020
tgcctgtggt gctgctgggt caggtggtcc agacggctgt ggacctgcag ctgtggacac    4080
acagggacag ccacgtccac tttggcctgg aggacgtgcc cctgctgaca tggctcctgg    4140
gctgcctgtc cctggtcctt gtggtggtga ccaatgagat cgtgaagcta catgagattc    4200
```

98

```
gggtccgagt ccgctaccag aagcgacaga agctgcagtt tgaaactaag ctgggcatga    4260
actctccctt ctgagccact ggctgtggtg gctgtagttg cccccgtccc tggggctaaa    4320
gccagaccca tttctgaaca ggggagtttg tatcatgaat gtttccaggt ttgctcctgc    4380
acccgtggca ctggaaaccc agctccccgt gtcagacccc gctgtcttcc tgagccctgg    4440
ggctcactgt ggaggagctg acggcctggg cccttggcca gtcctggctc ttccctgggc    4500
ctcaccaggg acactcttga atgtatggcc tcaggcgctc cctagagggg ccctaaaccc    4560
cctcacctgt gagctacccc ctttagggat cccttgcccc cttggagatc ccttgccccc    4620
cagtgcctct gctcgtgggt ccctggacac ggccttgaag ccaaccttct ttggaggagc    4680
aacagcagca gccttggccg acgcgtccaa ctcccaaggc tgccgtggag ggcaggggggg    4740
tggtgcttgc ctggatgtgg ccccgagtgc ctcccctccc tccctctgtg ggggagtctc    4800
ccgcctgaac ctgaagatgg agcagggccc ccgcttcgcc ctggagcctc ttcctgtgcc    4860
tggctcaagc tggctgcctg tcagtcttgg ggaatctggc ccaggtctcc tcagcctctg    4920
ccccagttct gggagaagtt tctactggtg tatatttttt actggaaatg agcctttag    4980
gaatgaatgt agactggttt gtattaaaat gtgtcaattg ct    5022
```

<210> 238
<211> 6611
<212> DNA
<213> Homo sapiens

<400> 238
```
tgactgcatc acctggtctg tgaattttcc attagaagct tggtgtgctg ttaggtgaaa    60
gacttgctca gctatgcgtc attgggtttt atcaacatat aggcgaaaaa aatcctggtc    120
tctgagtgta cagctgagat gaaaatttct tttattggag gaagtattga gtgtgtgctc    180
tcaaatgcgg cctcagttga gtagtgcatt cctgagtttt ggaagcaaat ttgcaaacaa    240
ttgagagtcg tacagtgggt gttctaactg gattcaggtt ttttctaatg taattttttc    300
acacgtaaat taaaaagttt agaaatgtca cacataactt cataacactt tatggagaaa    360
tggttgtact tttaattttt ttctttttat ttatactcca actgactgag cagaggttgt    420
acttctaaat aactttgtgg aagttttag taccataatt tttataattt tcattccagt    480
cctttgatat ttatgacagt acttctgaag cgcttactga gtgccggaca ctgttgtaag    540
tgctttacgg aacttgactt ttttttttt ttgagacgga ctctcgctct gtcgcccagg    600
ctggagtgca gtggtgcagt ggctcgatct cggctcactg ccacctctcc ctcatggttt    660
caaacacttc tcctgcctca gcctcccagg tagccaggat tatagccgcc cgccaccact    720
cccgactaat tttattttgt atgttctttt ttagtagaga cggaggagtt tcaccatgtt    780
ggccaggctg gtatcgacct cctgacctca agtgatgtgt ccatctcggc ctcccaaggt    840
gctggaatta caggtgtgag ccactgtgct cggcctacct tttttttttg tttttgtttt    900
ttttgaaaag gagtttcgct cttgtccagg ctggagtata atggtgcgat ctcagctcac    960
cgcaatctcc gcctcccaga ttcaagcgat tctcctgcct cagcctcctc aggagctggg    1020
attacaggcg cccaccgcca tgcccggcta attttgtat ttttagtaga cggggggttt    1080
cactatattg gccaggctgg tctcgaactg ctgacctcaa gtaatccgcc tgcctcagcc    1140
tcccaaagtg ctgggattac agacgtgatc caccaggatc acaccaggcc gcgcctggcc    1200
tgctttcatt ttaaaagtca aatttgtcat ccgcctcagt gcttgtaatc ttttctgagt    1260
gagatactga aatttgcagt ttcgtttgc ttgcacttgt tcactggacc agtagtcact    1320
gttaaatgta aaagtatcta cttcctctga aagttttta ttcctttatt tcctgcctgg    1380
gcttgtcctc caccctacat gtatgcgtag tagatttagt gtttgttatc ctaacctta    1440
ggtttaggga ttgactgggt ttctgacttt ttatttggcc aatgaggacg atacagaaaa    1500
tgaagcattg gtcattatca cattttaacg ctgaaaaagt aagaaggaca accccggaat    1560
aaaatgatat cagtatcaag ataaaagttt ggaatgggag aaaaattctc aaagcctgaa    1620
```
```

99
```

```
agaaaatctg tagttacttt tggtgacgct gtccagttcc cacaatgtat cattccttat     1680
ctgaaactag acatcctctg cagccagaag aacaagaagt aggcattgac cccttgtcca     1740
gttactctaa caagtctgga ggagattcaa ataaaaatgg aagaagaaca agttctactt     1800
tagactctga agggactttt aattcctata ggaaagaatg ggaagaacta tttgtaaaca     1860
acaattactt ggcaacaata aggcagaagg ggattaatgg gcagctgaga agcagcaggt     1920
tccgcagcat ttgctggaag ctatttcttt gtgttcttcc tcaagacaaa agtcaatgga     1980
taagtagaat tgaagaatta agagcatggt atagcaacat aaaagaaata catattacca     2040
acccgaggaa ggttgttggc caacaagatt tgatgatcaa taatcctctt tcacaggatg     2100
aagggagtct ttggaacaaa ttcttccaag ataaagaact tcgatcaatg attgaacaag     2160
atgtcaaaag aacgtttcct gaaatgcagt ttttccagca agaaaatgtg agaaaaattc     2220
ttacagatgt tcttttctgt tatgccagag aaaacgagca gttgctttat aaacagggca     2280
tgcacgaact gttagcacct atagtctttg tccttcactg tgaccaccaa gcttttctac     2340
atgccagtga gtctgcacag cccagtgagg aaatgaaaac tgtcttgaac cctgagtatc     2400
tggaacatga tgcctatgca gtgttctcac aacttatgga aactgctgaa ccttggtttt     2460
caacttttga gcatgatggt cagaagggga agaaacact gatgactccc attccctttg     2520
ctagaccaca agatttaggg ccaacaattg ctattgttac taaagtcaac cagatccagg     2580
atcatctact gaagaagcat gatattgagc tttacatgca cttgaacaga ctagaaattg     2640
caccacagat atatgggtta aggtgggtgc ggctgctatt tggacgagag ttccccctgc     2700
aggaccttct ggtggtctgg gatgccttgt ttgcagacgg cctcagcctg ggtttagtag     2760
attatatctt cgtagccatg ttactttaca tccgagatgc tttgatctct agtaactacc     2820
agacctgtct cggccttctg atgcattacc cattcatcgg ggatgtacac tcactgattc     2880
ttaaggctct gttccttaga gatccaaaga gaaatccaag accagtgact tatcaattcc     2940
atccaaattt agattattac aaagcacgag gagcagacct catgaataaa agccggacca     3000
atgccaaagg tgctcccctg aatataaata aggtctctaa tagcctgatt aattttggaa     3060
gaaagttgat ttccccagca atggctccag gcagtgcagg tggccctgta cctggaggca     3120
acagcagtag ctcctcctct gttgtaattc ctaccaggac ctcagcagag gccccaagcc     3180
atcacttgca acagcaacag cagcagcaga ggctgatgaa atcagaaagc atgcctgtgc     3240
aattgaacaa agggctaagt tctaaaaaca tcagttcatc tccaagcgtt gagagtttgc     3300
ctggaggaag agaattcact ggctctccac cttcatctgc tactaaaaaa gattcctttt     3360
ttagcaacat ctcacgttct cgctcacaca gcaaaactat gggcagaaaa gaatctgaag     3420
aagaattaga agcccaaatt tccttccttc aagggcagtt gaatgacctg gatgccatgt     3480
gcaaatactg tgcaaaggtg atggacactc atcttgtaaa tattcaagat gtgatattac     3540
aagaaaattt ggaaaaagaa gatcaaattc tggtttccct ggcaggatta aaacagatca     3600
aagacattct aaaaggttcc ctgcgtttta accagagcca gctagaggcc gaagagaacg     3660
aacagatcac cattgcggac aaccactact gctccagcgg ccagggccag ggccgaggcc     3720
aaggccagag cgttcaaatg tcaggggcca ttaaacaggc ctcttcagaa acgccagggt     3780
gcactgatag agggaattcc gatgacttca tcctgatttc caaagatgat gatgggagca     3840
gtgccagggg ctccttctcc ggccaggccc agcctcttcg caccctcaga agcacctctg     3900
ggaaaagcca ggccccagtc tgctccccac tggtgttctc agatccactg atgggcccag     3960
cctcagcttc ctccagcaac cccagctcca gtcctgatga cgacagcagc aaggactctg     4020
gcttcaccat tgtgagtccc ctggacatct gaccacagtg cccagtcctg ccccacaggg     4080
atctagccac ccttcagtgg ccccaaggcc agactgaggc tcatccagtg gagaaccttc     4140
ttaaaccact gcttccttcc cggcatgcat ttggcattgg tccagccctt tgaaacccct     4200
tagagagaag catatatggc cacaaagcac agaggcttag gtttgccaca tgcagacagg     4260
gctttctggg cccttaccta atccccaccc gactcttgct ctgagttaga gctgagttac     4320
gtacccagta tcacactcac agttagaaaa gaccgaatca caatttagaa tcacttttcc     4380
tctgtccct tctccccagc taagaatgtg tggcacctcc atcagttata cttagaagga     4440
gcagaaatag ttattttcgt atcttctatc cctcaaagca tcagacatgg gaaaattggt     4500
```

100

```
ttataccaag aaagcttcct ctgtggaaat ctgtctcagc ctactttatt cctgcattgg    4560
gaagccatat cgcagagcta aatgcaatag aatgaaccag aactagtgga ttccagggct    4620
gggggaaaaa aaaaaaagaa aaaacctcat tactgacctc tcaaagttat aaggatctct    4680
gcaaacagga tctaagctta ggaataatat ttaggtgtga tatagtgtta gatttttttg    4740
atgtattaaa gaatgcatct ccaatcctta ggccatatca actttggcca tcaatatctc    4800
tccttaaaca attatatttc acctttaga atctttcata gccagaaaac aagattactg    4860
taagccagtt ttagctgcac tgatttcaaa agatataaga atattactat ccttcaaatg    4920
gaaaatgcga ccttgacttt atgggataaa catctttcag acagtcagtt ttctagtcag    4980
gtttctctgg tttcagagct gtatatacct gtcaactgag gaataaaggg aaaaacccaa    5040
gttcattccc acccaaagtc agaatccctc attggcctta aggtagcagt cataagacag    5100
agaattggac ctagagtccc ttctgtgggg aataaggata cctagagaac attccacatg    5160
ccaagaggat gcaggatttc tacacaaccc cttcccttct tggaagtcaa gtgtaggtac    5220
tgcagggcct gtgctcagct gtgaaccccg tatcctgggc cccactgccg ggaccgggtc    5280
tgacatgcca gtgccttcct gggctgagca cagattagag actctccccc ttgtcagtca    5340
gcaccttagg aaaccatgat gggcacagag catcacatga gctgtttctc tccttaaaga    5400
agatccctgg aaaggatgct tttcctctcc tttgcctgcg caggaattct aacaggagtg    5460
ggtgaggatg gcagagggac acagtgcctg tctcgcctcc atcagggaga gcagccatgc    5520
cagggatgac tagctctttg agcctgtcct cagaggatgg cgaggcagcc gggcagtgga    5580
ggccttcatg gtaacaaatg aaagctcagt atagaggaac agacactgtt tacgtccctc    5640
ccactgctaa ccttatatat ctctatagac aaatgtgata atgacatgat ttcccacctg    5700
ccctccaaga aaatggtgac tcactctcaa gtcagctact gtagagaggg ttctaattgg    5760
ttctgcaatt tgctcttaaa ctctagcagg gaactctcct cttaccacat cagcatgtaa    5820
ggtgaataat aactctggtt ttgccagaca gcaggttgtc tgaccttcaa ccactgggca    5880
attgcctggc agatgcacac agtagctccc tggcttctgg ctctgagtgt tcctctcagc    5940
acctctgagt aagctgctgc caagcacata tccctatgac aacactttgt aaaagccgcg    6000
gggcccccat acagcgagtg accttgcaac tgtgcagggt tgccattggt cactttctca    6060
ccttgggaag gtgtcagtgt tttcagttct aaggtaagag gtgtagagct gttcccacca    6120
gggctctggg acagactgga aaggaccaca gacctggcca tccctgggca gcagggccag    6180
tgtcacctgc tgacctctag tatttccttt gccctagagc tagagtcatg atagctgagg    6240
gtcactcgcc ctgcaagagt cactaggcac ccaccatgcc aataaggctc tccgctggct    6300
ccctgcagtt ggctgggtgt ttaatagtca ctgaaaactc ccagccctgc tgcacactag    6360
aggcaggtcc tctcggtcct ctccatcctg tgcttctgtg gcccccagca agctcaccgc    6420
ctccttggag gagagagaca tacaaggaca gtgggtcatg ggtagtacca gcctcaaatt    6480
cccacaggct catactcaga caattgtatt actgccttat gttttttaag tgtttttta    6540
aattcttcat agttgagtat tatttgcaat tttattagtt acagtgctat taaagaatat    6600
gtgctccttt t                                                        6611
```

```
<210>   239
<211>   7819
<212>   DNA
<213>   Homo sapiens

<400>   239
ggatctgata ctgcccacca tacagaagtc cttactgagg agtccagaga atgttattga      60
aactatttct agtctgctgg catcagtgac gcttgacctc agccagtatg ccatggacat     120
cgtgaaagga ctggctggtc acctgaaatc caacagtccc cgcctgatgg atgaagctgt     180
gctggcactg cggaacctgg cacgccagtg cagtgactct tcggccatgg aatccctgac     240
caagcaccta tttgctatcc tcggaggctc ggaaggaaaa ctaactgttg tagcccagaa     300
```

```
gatgagcgtc ctctcaggga ttgggagcgt cagtcatcac gtggtgtctg gaccttccag      360
tcaggtcctg aatgggatcg tggctgagct gttcatcccg ttccttcagc aggaagttca      420
tgaagggacc ttggtacacg ctgtctcagt cctggctctc tggtgtaacc gattcactat      480
ggaagtgccc aagaagctca ctgaatggtt caaaaaagct ttcagcctta aaacctccac      540
atctgcggtg aggcatgcct acctgcagtg catgttggcc tcttaccggg gtgacacgct      600
gttgcaggcc ctggacttac tgcccttgct catccagaca gtggagaagg cagcctccca      660
aagcactcag gttcccacca tcaccgaagg ggttgccgca gccttgttgc tcttaaagtt      720
gtcagtggct gactcacagg ctgaggccaa actgagcagt ttctggcagt tgattgtgga      780
tgagaaaaag caggttttca cttctgagaa attcctggtc atggcttcag aggatgccct      840
gtgtactgtg ttgcatctga cagagagact tttccttgac cacccgcata gactcactgg      900
caacaaagtt cagcagtacc accgggctct ggtggcggtg ctcctgagcc gcacctggca      960
cgtccgcagg caggctcagc agacagttcg gaagctgctg tcctctcttg ggggctttaa     1020
gctggcgcac ggactcttgg aggagctgaa gactgtcctc agttctcaca aggtgctgcc     1080
cttagaggct ttggtgactg atgctggaga ggtgactgag gcaggcaagg cctacgtgcc     1140
tccacgggtc ctgcaggagg ctctgtgtgt catctccggt gtgccagggc tcaagggtga     1200
tgtcaccgac actgaacaac tggcccagga aatgctgatc atctcccacc acccatcctt     1260
agttgccgtg cagtctggac tttggccagc acttcttgcc aggatgaaga tcgatcctga     1320
agcctttatc accaggcacc tggatcagat cattcccagg atgaccacac agagtcccct     1380
aaaccagtcc tccatgaatg ccatgggctc cctttccgtc ctgtcgccgg accgggtcct     1440
cccacagctc atcagcacca tcactgcctc cgtgcagaac cctgcactgc gcctggtgac     1500
gcgggaggag tttgccatta tgcagacccc tgctggggag ctgtatgaca aatccatcat     1560
tcagagtgcc cagcaggaca gcataaaaaa ggccaacatg aagcgagaga caaagctta     1620
ttccttcaaa gagcagatca tcgagctgga gctgaaggag gagataaaga agaagaaagg     1680
catcaaagag gaggtgcagc tgaccagcaa gcagaaggag atgctgcagg cccagctaga     1740
cagggaggcg caggtccgga ggcggctgca ggagctggat ggggagctgg aggcggcgct     1800
tggactgctg gacatcatcc tggccaagaa cccgtccggc ctgacccagt acatccctgt     1860
tttggtcgac tcttttctgc ccttgctgaa gtctcccctg gctgctccca ggatcaagaa     1920
ccccttcttg tccttggctg cctgtgtcat gccctctagg ctcaaggctt tgggcacttt     1980
ggtgagccac gtgaccctgc gcctgctgaa gccagagtgt gtcctggata agtcctggtg     2040
ccaggaagag ctgtcggtgg ctgtgaagag ggcggtgatg ctgctgcaca cccacaccat     2100
caccagcagg gtgggcaagg gggagccagg tgctgcgccc ttgtccgcgc cagccttctc     2160
cttagtcttc ccgtttctga agatggtgct gacggagatg ccccaccaca gtgaggagga     2220
ggaggagtgg atggcccaga ttcttcagat cctcactgtc caagcccagc tgagggcctc     2280
ccccaacacc ccacccgggc gggtggacga gaatggcccg gagttgctgc ctcgcgtggc     2340
catgctgcgt cttctgactt gggtgatcgg gacgggctcg cctcgcttac aggttctggc     2400
ttcagacacc ctgaccaccc tgtgtgccag cagcagtggt gatgatggct gtgcctttgc     2460
agagcaggag gaggtggacg tgctgctctg tgccttgcag tccccgtgtg ccagcgtgcg     2520
ggaaaccgtg ctccgggggc tgatggaact ccacatggta ttgccagcac ctgatactga     2580
tgagaagaat ggcctgaacc ttctgcggag actctgggtg gtcaagtttg acaaggagga     2640
ggagatccgg aagctggctg agaggctctg gtcaatgatg gcctagacc tgcagccaga     2700
cctctgctcc ttgctgattg acgacgtgat ctatcatgag gcggctgtaa ggcaggcagg     2760
ggccgaagcc ctctcccaag cagtggcacg ttaccagcgg caggcggcgg aggttatggg     2820
caggctcatg gagatttacc aggaaaagct ctaccggccg cccccagtgc tggatgcttt     2880
gggacgagtt atttcagaat ctcctccaga tcagtgggaa gccaggtgtg gcttggcgtt     2940
ggccctcaac aagctctccc agtatttgga cagctctcag gtgaagccac tctttcagtt     3000
ttttgtccct gatgccctca atgaccgaca cccagatgtc cggaagtgca tgttggatgc     3060
agccctcgca acgctcaaca ctcatgggaa ggagaacgtc aactcgctgt gccagtatt     3120
cgaggagttc ctgaagaacg cgcccaatga tgccagctac gatgctgtgc gacagagtgt     3180
```

102

```
ggtggtcctg atgggctctc tggccaagca cctggacaag agtgacccca aagtgaagcc    3240
cattgttgcc aagctcatcg ctgccctctc caccccctcc cagcaggtcc aggagtccgt    3300
agccagctgc ttgccacccc tcgtgccagc catcaaggag gatgctggag ggatgatcca    3360
gaggcttatg cagcagctgc tggagtcaga caagtacgca gagcgcaaag gggccgcgta    3420
tggcctggcg ggcctggtga agggcctggg catcctctcg ctgaagcaac aggagatgat    3480
ggcggcactg actgatgcca tccaagataa gaagaacttc cgccggcgag agggagccct    3540
ctttgccttc gagatgctct gcaccatgct ggggaaactt tttgagccgt atgtggttca    3600
cgtgctgccc catctgctcc tgtgctttgg ggatggaaac cagtatgtgc gtgaggctgc    3660
agatgactgt gccaaggctg tgatgagcaa cttgagtgct cacggggtga agctggtgct    3720
cccctcctta ctggctgccc tggaggagga atcgtggcgg accaaagctg ggtcagtgga    3780
gcttcttggg gcaatggcgt actgtgctcc taagcagctg tcatcctgtc tacccaacat    3840
tgtgcccaag cttacggagg tgctgaccga ctcccatgtc aaagtccaga aggctggaca    3900
gcaggcgctc aggcagatcg gctccgttat caggaacccg gagatcctgg ccattgctcc    3960
agtcctcctg gatgccctga cggatccctc caggaagacc cagaagtgct tgcagaccct    4020
gctggacacc aagtttgtcc acttcattga tgccccatcc ctggccctca tcatgcccat    4080
tgtccagaga gccttccagg accgttccac ggacacgcgg aagatggcag cccagattat    4140
tggcaacatg tactccctga cagaccagaa ggacttggct ccgtacctgc ccagcgtgac    4200
gcctggcctg aaagcatcgc tttttggaccc tgtgcctgag gtgcggaccg tatctgcaaa    4260
ggcccttggg gccatggtga agggcatggg ggagtcgtgc tttgaggact tgctgccgtg    4320
gctgatggag acactgacct atgagcagag ctctgtggat cgctcaggcg ctgcacaggg    4380
gttggctgag gtcatggccg gtttgggggt ggagaagttg gagaagttga tgccagaaat    4440
cgtggctaca gccagcaaag tggacattgc accccatgtc cgagatggct acattatgat    4500
gtttaactac ctgcccatca cctttggaga caagtttact ccttatgtgg ggcccatcat    4560
cccctgtatc ctcaaagctc ttgctgatga gaatgagttt gtgcgtgaca ccgccctgcg    4620
cgcgggccag cgggttatct ccatgtacgc tgagacagcc atcgccctgc tgctgcccca    4680
gctagagcaa ggcctctttg atgacctttg gagaatcagg ttcagctctg ttcagctcct    4740
tggggatctc ctgtttcaca tctcaggagt cactgggaag atgaccacag aaactgcctc    4800
tgaggatgat aactttggaa ctgcccagtc caacaaggcg atcatcactg ccctggggggt    4860
agagcggcgg aaccgggtgt tggcagggct gtacatgggc cgctcagaca cccagctggt    4920
ggtgcggcag gcgtccctgc atgtctggaa gattgttgtc tccaataccc cccgcacctt    4980
gcgtgagatc ctacccactc tctttgggct cctgctgggt ttcctggcca gcacgtgtgc    5040
agataagaga acgattgcag cgagaacatt gggagatctt gtgcggaagt taggggagaa    5100
aatcctcccc gagatcatcc ccatccttga ggaaggcctg aggtctcaga agagcgatga    5160
gaggcagggt gtgtgcattg gcctaagtga gatcatgaag tccaccagcc gggatgccgt    5220
gctgtatttc tctgaatccc tcgtgcccac ggcaaggaag gctttgtgtg acccactgga    5280
ggaggtcaga gaggcggcag ccaagacttt cgagcagctg cattccacca tcggccacca    5340
ggctctggag gacattctcc cattttact aaagcagctg gatgacgagg aggtgtcaga    5400
gtttgccttg gatggtctga agcaagtcat ggctattaag agtcgtgtgg tgctgcccta    5460
ccttgtgccc aagctgacaa cgccacctgt caacacccgg gtgctggctt tcctttcgtc    5520
agtggctggt gatgccctca cccgtcatct ggcgtgatc ctcccagcgg tcatgctggc    5580
cctgaaggaa aagcttggga ccccagatga gcagctggag atggccaatt gtcaggctgt    5640
gatcctctcc gtagaggatg acacagggca ccggatcatc atcgaggatc tgctggaggc    5700
cacccgcagc cctgaggtgg gcatgaggca agctgctgcc atcatcctca acatctactg    5760
ttccccgctca aaggctgact acaccagcca cctgcggagc ctggtctcgg gcctgatccg    5820
cctcttcaat gactccagcc ctgtggttct ggaggagagc tgggatgccc taaatgccat    5880
cactaagaag ctggatgctg gcaaccagtt ggcactcatt gaagagctgc acaaggaaat    5940
ccggctcata gggaacgaga gcaaaggcga gcatgtgcca ggattctgcc tcccgaagaa    6000
```

103

```
gggagtgacc tccatccttc cagtgttgcg ggaaggagtc ctgactggca gccctgagca      6060
gaaggaggag gcagccaaag ccttaggctt ggtaatccgc ctgacctcgg ctgacgccct      6120
gaggccctcc gtggtcagca tcactggccc tctgatccgc atcctggggg acaggttcag      6180
ctggaatgtg aaggcggctc tgctcgagac actcagcctc ttgttggcta aggttgggat      6240
tgccctgaag cccttcctgc cccagctgca gaccactttc accaaagccc tgcaggactc      6300
caaccggggg gtgcgcctga aggccgcaga tgctctgggg aagctcattt ccatccacat      6360
taaggtggac cccctcttca cagagctgct caatggcatc cgcgccatgg aggacccagg      6420
tgtcagggac accatgctgc aggccctgag gtttgtgatt cagggagcag gggccaaagt      6480
ggatgccgtc atccggaaaa acatcgtctc actcctgctg agcatgctgg gacacgatga      6540
ggacaacact cgcatctcct cagccgggtg cctaggggaa ctgtgtgcct ttttgactga      6600
agaggagctt agtgccgttc tacagcagtg cttgctggcg gacgtgtccg gcattgactg      6660
gatggttcgg cacgggcgga gcctggcact ttccgtggct gtgaatgtgg ctcctggcag      6720
actttgtgcc ggcagatata gcagtgatgt tcaggaaatg atcctgagca gtgccacggc      6780
ggacaggatc cccattgcgg tgagcggggt ccggggcatg ggctttctca tgagacacca      6840
catcgagaca ggcggagggc agttgccggc caaactttcc agcctgttcg ttaagtgtct      6900
gcagaaccca tccagcgaca tcaggctggt ggctgagaag atgatctggt gggcaaataa      6960
ggacccactg cctcccctgg acccccaggc catcaagccc atcctgaagg ctcttcttga      7020
caacaccaag gataagaaca ccgtggtcag ggcctacagc gaccaggcaa ttgtcaacct      7080
cctcaagatg cggcagggtg aagaggtgtt tcagtccctc tccaagatcc tggatgtggc      7140
cagtttggag gtgctgaacg aggttaaccg aaggtccctg aagaagctgg ccagccaggc      7200
cgactccacg gagcaggtgg acgacaccat cctgacatga gaggcctggg ccagcagcag      7260
cattgccgct ccacatcttt gctcaatgtt ttcatttttg aaaatacatt tgttccaatg      7320
gggagcttgg aagatggcgt tcccagaaag tattttaata tcaatagacc acagccaaag      7380
ccttaaatca aacccacaca caactgaaaa ttgcctcctc catctctcac cttttcctgt      7440
ggagaagaga aggaaaagca cacgcatgcg cctcagcaaa tggcagccca ggagctgttt      7500
gtccagttta gcatggctag gtctggaact ataatagcag ggtcagactg tgggttcctc      7560
ttctcctgtg cttgagctct ggtttgagag ctggcgctac caaccttttt cctatatccc      7620
gagtggggca cagacggtgg atctctgccc agtgtggtgt gtctggcttg gctttttcaat     7680
attgtgaggt ctgaatggat ctgacccctg tcagatgaaa atgattcaca gctctggcag      7740
ttcccaagtc tggggagggg tataggtttg aaaggctgtt tgaaagagga atgtttaata      7800
aaggctttga tttaatcttt                                                  7819
```

<210> 240
<211> 5878
<212> DNA
<213> Homo sapiens

<400> 240
```
caaaacatag agtaccccgg cagccggcaa gaggaagaga gagtggcttc cacatcccca        60
atatcctaga ggcggctgag ccggaggcgg tcgcacaaag cgggccccgg gggccgttcc       120
agccgcggcc gaccatagag atgcggctcc cgccggctct gggtctggag ataggaaagc       180
tgaggcccag agaagcgaag cgactgtgtc tgtccaagac cacgcgccct cctgcccgga       240
agataagcgt atttcttctc tggtgcccac ctgtctccta cctcaccctg ccctcccgca       300
ggtgaaggtt cttaatcttg acggctcagc gtcctccttg ctcccccccg gaggccatgt       360
atggtcaagc ttgaagattc cccagaacaa cgctaatatt cacatttaag aagccaaaac       420
acacaagtcg gtggtgatga cagaccccct tttggactca gccagcca gtagcaccgg         480
ggagatggat ggactgtgcc ctgagctatt gctgatcccc ccgcctctct ctaaccgtgg       540
aatcctgggg cctgtccaga gccctgtcc ttcccgggac cctgcaccta tacctactga       600
gccaggctgc ctgctggtag aggccacagc aactgaagag ggaccaggga acatggagat       660
```

                              104
```

```
cattgtggag acagtagctg gaaccctgac cccaggtgct cctggagaga ccccagctcc    720
caaactgcct ccaggagaga gagaaccttc acaggaagca ggtacaccct tgcctgggca    780
ggagacagct gaagaggaga atgtagagaa agaagagaag agtgacaccc agaaggactc    840
ccaaaaggct gtggataaag gccaaggggc tcagcggctg gaaggggatg tggtctctgg    900
caccgagtcc ctcttcaaga cccatatgtg tccagagtgt aagcgctgct ttaagaagcg    960
gactcatctg gtggagcacc tgcatctcca cttcccagac cccagcctcc agtgccctaa   1020
ctgccagaag ttcttcacca gtaagagcaa gctcaagacc catctgctgc gggagctggg   1080
tgaaaaggcc caccactgcc cactgtgcca ctacagtgcg gtggagagga atgcactcaa   1140
ccgccacatg gccagcatgc atgaagatat ttccaacttc tactcagaca cctatgcctg   1200
tcctgtctgc cgtgaggaat ccgcctcag ccaggcccta aaggagcacc tcaagagcca   1260
cacggcagca gccgcagcag agccattacc ccttcgctgc tttcaggagg ctgcagcta   1320
tgcagcaccc gaccgcaagg ccttcattaa gcacctgaag gagacccatg gggtgcgggc   1380
tgtggagtgc cgccatcact catgtcccat gctctttgcc acagccgaag ccatggaggc   1440
ccaccacaag agtcactacg ccttccactg cccccactgt gattttgctt gttccaataa   1500
gcacctattc cgtaaacaca agaagcaggg ccaccctggc agtgaagagc tgcgctgcac   1560
cttctgcccc tttgccacct tcaacccagt ggcttaccag gatcatgtag gcaagatgca   1620
tgctcatgaa aagatccacc agtgtcctga gtgcaacttt gccactgccc acaagagggt   1680
gctcatccga cacatgcttc tacatacggg tgagaagccc cacaagtgtg agctgtgtga   1740
cttcacatgc cgagacgtga gctacctatc caagcacatg ctgacccact ccaacaccaa   1800
ggattacatg tgcactgaat gtggctatgt caccaagtgg aagcactacc tccgtgtgca   1860
catgcgaaaa catgcagggg acctcaggta tcagtgcaac cagtgctcct atcgctgtca   1920
ccgggctgat cagctgagca gccacaagct gcggcatcag ggcaagtctc tgatgtgtga   1980
ggtgtgtgcc ttcgcctgca agcggaagta tgagctgcag aagcacatgg cttcccagca   2040
ccaccctggc acaccgtccc cactctaccc ttgccactac tgcagttacc agagccgcca   2100
caagcaggct gtgctgagcc atgagaactg caagcatacc cgcctccgtg agttccactg   2160
tgccctctgt gactaccgca ccttcagcaa caccacactc ttgttccata aacgcaaggc   2220
ccatggctat gtacctggag accaggcctg gcagctccgc tatgcaagcc aggagccaga   2280
aggggccatg cagggcccaa cacccccacc agattcagag ccctcaaacc agctgtcagc   2340
ccgacctgag gggccaggtc acgaacctgg gactgtggtg accccagct tggaccaggc   2400
cctgccagag atgagtgagg aggtcaacac tggaagacag gagggcagtg aggctcccca   2460
tgggggtgac ctgggtggca gtcccagccc agcagaggtg gaggagggca gctgcacact   2520
acacctagag gccctgggag tagagctgga gtctgtgact gagccacccc ttgaggaggt   2580
cactgaaaca gcccctatgg agttcaggcc cctgggactg gaagggccag atggactgga   2640
aggaccagag ctatctagct ttgaaggtat tgggacttct gacttgggtg ctgaagaaaa   2700
tcccttctg gaaaagccag tgtctgagcc ctccacaaat cctccatcct tagaggaggc   2760
tcctaacaac tgggtaggaa ccttcaagac aactccacct gctgagacag caccccttgcc   2820
cccattacct gagtcagagt cattactcaa ggccctaagg agacaggaca aagaacaagc   2880
agaggcattg gtgctagagg ggcgggtgca gatggtagtg atccagggag aggggcgagc   2940
cttccgctgc ccacactgcc cttttatcac tcgccgggag aaggccctga atctgcactc   3000
caggactggg tgccaaggcc gccgagagcc cctgctgtgc cccgagtgtg gggctagctt   3060
caagcaacaa cgcggcctca gcacccacct gctgaagaag tgccctgttc tactcagaaa   3120
gaacaagggc ttgcccagac cagattcacc catccctctg caacctgtgc tcccaggtac   3180
ccaggcctca gaggacacag aaagtgggaa gcccccacct gcatcacaag aagcagagct   3240
actgcttcca aaagatgctc ctttggagct tccaggggag ccagaagaaa cagaagagcc   3300
tcttgccaca gtctctggtt ccccagtccc tcctgcagga aactccttgc ccacagaggc   3360
ccctaagaag cactgctttg acccagtccc tcctgcagga aactcctcac ccacggaggc   3420
ccctaagaag caccaccttg acccagtccc tcctgcagga aactcctcac ccacagaggc   3480
```

                                    105

```
cctgaagaag caccgctttg agcagggcaa gtttcactgc aactcctgcc cattcctttg   3540
ttcccggctc tcctctatta cctctcacgt ggctgaaggc tgcaggggg gacgtggcgg     3600
gggaggaaaa cgagggaccc cccagaccca gcctgatgtg tccccgttga gcaatgggga   3660
ctctgctccc ccgaagaatg ggagtacaga gtccagctct ggtgatgggg atacagttct   3720
ggttcaaaag cagaagggg ctcgcttctc ctgccctaca tgtccctta gctgccagca      3780
ggaacgggct ctgaggactc accagatccg gggctgcccc ctcgaggagt ctggagagct   3840
gcactgcagc ctctgcccat tcactgctcc tgctgccact gccttaaggc tccaccagaa   3900
gcggaggcac cccactgcag ccccagcccg tgggccccgg ccccatctac agtgtgggga   3960
ctgtggcttc acctgtaaac agagccgttg catgcagcag caccggcggc tcaagcacga   4020
gggggtgaag ccccatcagt gccccttctg tgactttcg accaccagac ggtaccggtt      4080
agaggctcac cagtcccgac acacaggcat tggccgcatc ccctgcagct cttgccccca   4140
gacgtttggt accaactcga aactgcgctt gcaccggtta agggtacatg acaaaacacc   4200
tacccacttc tgtccacttt gtgactatag tggctacctt cgccatgaca tcactcgtca   4260
tgtcaacagc tgccaccaag gcaccccagc ctttgcctgc tcccagtgtg aagcccagtt   4320
cagctcagag acagcactta agcagcatgc tctgcgccga caccccgagc ctgcacagcc   4380
tgcccctggc tctcctgcag agaccactga gggccccctg cactgttccc gctgtgggtt   4440
gctgtgcccc agccctgcca gcttacgagg acacaccgt aaacagcacc cacggcttga      4500
gtgtggggcc tgccaggagg ccttccctag ccgactggct ctggatgagc accggaggca   4560
gcagcatttc agccaccgct gtcagctctg tgactttgct gcccgggagc gggtgggcct   4620
ggtaaagcac tacctggaac agcatgagga gacttcagca gccgtggcag cctcagatgg   4680
ggatggggat gctggccagc ccccgctaca ctgcccctt tgtgacttca catgccgcca    4740
tcagctggta ctagatcacc atgtgaaagg gcatgggggc actcgtctct acaagtgcac   4800
cgattgtgct tacagcacca agaaccgaca gaagatcacc tggcacagcc gcatccacac   4860
tggggaaaag ccttaccact gtcacctctg cccctatgcc tgtgctgatc cctctcgtct   4920
caagtaccac atgcggatcc acaaggagga acggaagtac ctgtgccctg agtgtggcta   4980
caagtgcaag tgggtcaacc agctgaaata ccacatgacc aagcatacag gactgaagcc   5040
ataccagtgt cccgagtgtg agtactgcac caaccgggct gatgcactgc gtgtgcacca   5100
ggagacccgg catcgagaag cacgggcttt catgtgtgag cagtgtggca aggccttcaa   5160
gacgcgcttc ctgctgcgca cccaccttcg caagcacagt gaggccaaac cctatgtgtg   5220
caatgtgtgc accgtgctt tccgctgggc tgctggcctg cgccatcatg ccctcaccca    5280
caccgaccgc cacccttct tttgccgcct ctgcaactac aaggccaagc aaaagttcca    5340
ggtggtcaag cacgtacgca ggcaccaccc tgaccaagcc gacccaaacc agggtgtggg   5400
caaagacccc accacccca cagtgcacct gcatgatgtg cagctggagg atcccagccc   5460
tcctgctcct gccgctcccc acactggacc tgagggctga aagcctgccc cacctcctgt   5520
ataggaagag ggtatggtct gagatgtgca gactgggacc agcgctagcc tgaggagctc   5580
agagcctaag gaaagactgg ctttgggt acaagggtga ctagaacctt cctgggactc     5640
tggctatagt actttgaaat tatcacccat ataaagagg gacatggact ataacgttga     5700
tttcttattg ctgtacattg cgttttaac ctgcaagttc tcagtttctt caccatcact     5760
ccatcaaagt ccctggctat aagatctgga ttttacccac tccatcttct ctttccttct   5820
tactgtgtca attcctattt tctttcagaa tcttctaaaa acagttgtat ctaaccgc      5878
```

<210>   241
<211>   1555
<212>   DNA
<213>   Homo sapiens

<400>   241
```
ccggatggtg caggaagcgc cagctgcgct gcccacggag ccaggcccca gccccgtgcc     60
tgccttcctc ggcaagctat gggcgctggt gggggaccca ggcacagacc acctgatccg   120
```

106

```
ctggagcccg agcgggacca gtttcctcgt aagcgaccag agccgtttcg ccaaggaagt      180
gctgccccag tatttcaagc atagcaacat ggcgagcttc gtgcgccaac tcaacatgta      240
cggttttcgg aaggtggtga gcatcgagca gggcggcctg cttaggccgg agcgcgacca      300
cgtcgagttc cagcacccga gcttcgtgcg cggccgcgag cagctactgg agcgcgtgcg      360
gcgcaaggtg cccgcgctgc gcggcgacga cggccgctgg cgcccggagg acctgggtcg      420
actactgggc gaggtgcagg ctttgcgggg agtgcaggag agcaccgagg cgcggctgcg      480
ggagctcagg cagcagaacg agatcttgtg gcgggaggtg gtgacacttc ggcagagcca      540
cggtcagcag caccgggtca ttggcaagct gatccagtgt ctctttgggc cacttcaggc      600
ggggccgagc aatgcaggag gcaagagaaa gctgtccctg atgctggatg aggggagctc      660
atgcccaaca cctgccaagt tcaacacctg ccctctacct ggtgcccttc tgcaggaccc      720
ctacttcatc cagtcgcctt ctacttacag cctctcccag agacaaattt gggccttagc      780
cctcacaggg ccaggggccc catcatctct gacatcccag aagactctcc atccctgag       840
gggaccaggc tttctccctc cagtgatggc aggagccccc cgccactgc ctgtggctgt       900
ggtgcaggcc atcctggaag ggaaagggag cttcagcccc gaggggccca ggaatgccca      960
acagcctgaa ccaggggatc ccagggagat acctgacagg gggcctctgg gcctggaaag    1020
cggggacagg agcccagaga gtctgctgcc tccgatgctg cttcagcccc ctcaagaaag    1080
tgtggaacct gcagggcctc tagatgtgct gggccccagt ctccaagggc gagaatggac    1140
cctgatggac ttggacatgg agctgtcctt gatgcagccc ttggttccag agcggggtga    1200
gcctgagctg gcggtcaagg ggttaaattc tccaagccca gggaaggacc ccacgctcgg    1260
ggccccactc ctgctggatg tccaggcggc cttgggaggc ccagccctgg gcctgcctgg    1320
ggctttaacc atttatagca ctcctgagag ccggactgcc tcctacttgg gcccggaagc    1380
cagtccctcc ccctaagacc ccgcgcctct gaaggggctt ggaaccagtc cgccgctgca    1440
catccttctt ggcttcctgg ccgcctacgg gggtgagcga agcccccact actaaatggc    1500
ctctctccac taccccgact atccctgcac ataaactccg ttttttttt tcacc         1555
```

<210> 242
<211> 1077
<212> DNA
<213> Homo sapiens

<400> 242

```
aggatcccaa ggcccaactc cccgaaccac tcagggtcct gtggacagct cactagcggc       60
aatggctgca ggctcccgga cgtccctgct cctggctttt ggcctgctct gcctgtcctg      120
gcttcaagag ggcagtgcct tcccaaccat tcccttatcc aggctttttg acaacgctat      180
gctccgcgcc cgtcgcctgt accagctggc atatgacacc tatcaggagt ttgaagaagc      240
ctatatcctg aaggagcaga agtattcatt cctgcagaac ccccagacct ccctctgctt      300
ctcagagtct attccaacac cttccaacag ggtgaaaacg cagcagaaat ctaacctaga      360
gctgctccgc atctccctgc tgctcactca gtcatggctg gagcccgtgc agctcctcag      420
gagcgtcttc gccaacagcc tggtgtatgg cgcctcggac agcaacgtct atcgccacct      480
gaaggaccta gaggaaggca tccaaacgct gatgtgggtg agggtggcac cagggatccc      540
caatcctggg gccccactgg cttccaggga ctggggagag aaacactgct gccctctttt      600
tagcagtcag gcgctgaccc aagagaactc accgtattct tcatttcccc tcgtgaatcc      660
tccaggcctt tctctacaac ctggagggga gggaggaaaa tggatgaatg agagagggag      720
ggaacagtgc ccaagcgctt ggcctctcct tctcttcctt cactttgcag aggctggaag      780
atggcagccc ccggactggg cagatcttca atcagtccta cagcaagttt gacacaaaat      840
cgcacaacga tgacgcactg ctcaagaact acgggctgct ctactgcttc aggaaggaca      900
tggacaaggt cgagacattc ctgcgcatcg tgcagtgccg ctctgtggag ggcagctgtg      960
gcttctagct gcccgggtgg catccctgtg acccctcccc agtgcctctc ctggtcgtgg    1020
```

```
aaggtgctac tccagtgccc accagccttg tcctaataaa attaagttgc atcattt          1077
```

<210> 243
<211> 2725
<212> DNA
<213> Homo sapiens

<400> 243
```
gatggcgccg agccgggtga gcagcgtctc ggctgccgct agagtttttcc tgctccccgc          60
gctcgggtgg cggggcgggg tctgagtggt accccggagg agacccttg aaggtccctt          120
gtggggactg gaaagaggac ggttggttgt gtgtctgtgc tcgtggggac cccgtgtgtg          180
tgcctgcatt ggagagatgt tgcaggagat ggggtgggct ctctgaacct cctttcgcgc          240
tgcccgggga tcttcgacct gcttctctgc tgggatctcg cttaagttaa cccttccctg          300
ggacgccttc ctgccgcctc cactgatctg aggagatcct gtgactgtag cgtgtttat          360
gagcctttac tggcagaggg taccgccggg tattgaagga ttcgtaggag ttcgccaggg          420
aagtgggaca cgaccccctc ttgtaaaccc ggcgccaggc acagaggtct ccgtctctcc          480
accggggggct tcatccttcc agggaggaga agagggactc cagaatggct gaggagaaga          540
agctgaagct tagcaacact gtgctgccct cggagtccat gaaggtggtg gctgaatcca          600
tgggcatcgc ccagattcag gaggagacct gccagctgct aacggatgag gtcagctacc          660
gcatcaaaga gatcgcacag gatgccttga agttcatgca catggggaag cggcagaagc          720
tcaccaccag tgacattgac tacgccttga agctaaagaa tgtcgagcca ctctatggct          780
tccacgccca ggagttcatt cctttccgct tcgcctctgg tgggggccgg gagctttact          840
tctatgagga aaggaggtt gatctgagcg acatcatcaa tacccctctg ccccgggtgc          900
ccctggacgt ctgcctcaaa gctcattggc tgagcatcga gggctgccag ccagctatcc          960
ccgagaaccc gcccccagct cccaaagagc aacagaaggc tgaagccaca gaaccctga          1020
agtcagccaa gccaggccag gaggaagacg accccctgaa gggcaaaggt caaggggcca          1080
ccacagccga cggcaaaggg aaagagaaga aggcgccgcc cttgctggag ggggcccct          1140
tgcgactgaa gccccggagc atccacgagt tgtctgtgga gcagcagctc tactacaagg          1200
agatcaccga ggcctgcgtg ggctcctgcg aggccaagag ggcggaagcc ctgcaaagca          1260
ttgccacgga ccctggactg tatcagatgc tgccacggtt cagtaccttt atctcggagg          1320
gggtccgtgt gaacgtggtt cagaacaacc tggccctact catctacctg atgcgtatgg          1380
tgaaagcgct gatggacaac cccacgctct atctagaaaa atacgtccat gagctgattc          1440
cagctgtgat gacctgcatc gtgagcagac agttgtgcct gcgaccagat gtggacaatc          1500
actgggcact ccgagacttt gctgcccgcc tggtggccca gatctgcaag cattttagca          1560
caaccactaa caacatccag tcccggatca ccaagacctt caccaagagc tgggtggacg          1620
agaagacgcc ctggacgact cgttatggct ccatcgcagg cttggctgag ctgggacacg          1680
atgttatcaa gactctgatt ctgcccggc tgcagcagga aggggagcgg atccgcagtg          1740
tgctggacgg ccctgtgctg agcaacattg accggattgg agcagaccat gtgcagagcc          1800
tcctgctgaa acactgtgct cctgttctgg caaagctgcg cccaccgcct gacaatcagg          1860
acgcctatcg ggcagaattc gggtcccttg ggccctcct ctgctcccag gtggtcaagg          1920
ctcgggccca ggctgctctg caggctcagc aggtcaacag gaccactctg accatcacgc          1980
agccccggcc cacgctgacc ctctcgcagg ccccacagcc tggccctcgc acccctggct          2040
tgctgaaggt tcctggctcc atcgcacttc ctgtccagac actggtgtct gcacgagcgg          2100
ctgccccacc acagccttcc cctcctccaa ccaagtttat tgtaatgtca tcgtcctcca          2160
gcgcccccatc cacccagcag gtcctgtccc tcagcacctc ggccccggc tcaggttcca          2220
ccaccacttc gcccgtcacc accaccgtcc ccagcgtgca gcccatcgtc aagttggtct          2280
ccaccgccac caccgcaccc cccagcactg ctccctctgg tcctgggagt gtccagaagt          2340
acatcgtggt ctcacttccc ccaacagggg agggcaaagg aggccccacc tcccatcctt          2400
ctccagttcc tcccccggca tcgtccccgt ccccactcag cggcagtgcc ctttgtgggg          2460
```

<div align="center">108</div>

```
ggaagcagga ggctgggggac agtcccccctc cagctccagg gactccaaaa gccaatggct      2520
cccagcccaa ctccggctcc cctcagcctg ctccgtgatg ctccacctgc cagcccccgg      2580
attcccacac atgcagacat gtacacacgt gcacgtacac acatgcatgc tcgctaagcg      2640
gaaggaagtt gtagattgct tccttcatgt cactttcttt ttagatattg tacagccagt      2700
ttctcagaat aaaagtttgg tttgt                                            2725

<210>   244
<211>   14136
<212>   DNA
<213>   Homo sapiens

<400>   244
gcactgcagc gccagcgtcc gagcgggcgg ccgagctccc ggagcggcct ggccccgagc        60
cccgagcggg cgtcgctcag cagcaggtcg cggccgcgca gccccatcca gccccgcgcc       120
cgccatgccg tccgcgggcc ccgcctgagc tgcggtctcc gcgcgcgggc gggcctgggg       180
acggcggggc catgcgcgcg ctgccctaac gatgccgccc gccgcgcccg ccgcctggc        240
gctggccctg ggcctgggcc tgtggctcgg ggcgctggcg ggggcccccg ggcgcggctg       300
cgggccctgc gagccccct gcctctgcgg cccagcgccc ggcgccgcct gccgcgtcaa       360
ctgctcgggc cgcgggctgc ggacgctcgg tcccgcgctg cgcatccccg cggacgccac       420
agcgctagac gtctcccaca acctgctccg ggcgctggac gttgggctcc tggcgaacct       480
ctcggcgctg gcagagctgg atataagcaa caacaagatt tctacgttag aagaaggaat       540
atttgctaat ttatttaatt taagtgaaat aaacctgagt gggaacccgt ttgagtgtga       600
ctgtggcctg gcgtggctgc cgcgatgggc ggaggagcag caggtgcggg tggtgcagcc       660
cgaggcagcc acgtgtgctg ggcctggctc cctggctggc cagcctctgc ttggcatccc       720
cttgctggac agtggctgtg gtgaggagta tgtcgcctgc ctccctgaca acagctcagg       780
caccgtggca gcagtgtcct tttcagctgc ccacgaaggc ctgcttcagc cagaggcctg       840
cagcgccttc tgcttctcca ccggccaggg cctcgcagcc ctctcggagc agggctggtg       900
cctgtgtggg gcggcccagc cctccagtgc ctcctttgcc tgcctgtccc tctgctccgg       960
cccccccgcca cctcctgccc ccacctgtag gggccccacc ctcctccagc acgtcttccc      1020
tgcctcccca ggggccaccc tggtggggcc ccacggacct ctggcctctg gccagctagc      1080
agccttccac atcgctgccc cgctccctgt cactgccaca cgctgggact cggagacgg       1140
ctccgccgag gtggatgccg ctgggccggc tgcctcgcat cgctatgtgc tgcctgggcg      1200
ctatcacgtg acggccgtgc tggccctggg ggccggctca gccctgctgg ggacagacgt      1260
gcaggtggaa gcggcacctg ccgccctgga gctcgtgtgc ccgtcctcgg tgcagagtga      1320
cgagagcctt gacctcagca tccagaaccg cggtggttca ggcctggagg ccgcctacag      1380
catcgtggcc ctgggcgagg agccggcccg agcggtgcac ccgctctgcc cctcggacac      1440
ggagatcttc cctggcaacg ggcactgcta ccgcctggtg gtggagaagg cggcctggct      1500
gcaggcgcag gagcagtgtc aggcctgggc cggggccgcc ctggcaatgg tggacagtcc      1560
cgccgtgcag cgcttcctgg tctcccgggt caccaggagc ctagacgtgt ggatcggctt      1620
ctcgactgtg cagggggtgg aggtgggccc agcgccgcag ggcgaggcct tcagcctgga      1680
gagctgccag aactggctgc ccggggagcc acaccagcc acagccgagc actgcgtccg       1740
gctcgggccc accgggtggt gtaacaccga cctgtgctca gcgccgcaca gctacgtctg      1800
cgagctgcag cccggaggcc cagtgcagga tgccgagaac ctcctcgtgg gagcgccag       1860
tggggacctg caggggacccc tgacgcctct ggcacagcag gacggcctct cagccccgca      1920
cgagcccgtg gaggtcatgg tattcccggg cctgcgtctg agccgtgaag ccttcctcac      1980
cacggccgaa tttgggaccc aggagctccg gcggcccgcc cagctgcggc tgcaggtgta      2040
ccggctcctc agcacagcag ggaccccgga gaacggcagc gagcctgaga gcaggtcccc      2100
ggacaacagg acccagctgg ccccgcgtgt catgccaggg ggacgctggt gccctggagc      2160
```

109

```
caacatctgc ttgccgctgg acgcctcttg ccacccccag gcctgcgcca atggctgcac   2220
gtcagggcca gggctacccg gggcccccta tgcgctatgg agagagttcc tcttctccgt   2280
tgccgcgggg ccccccgcgc agtactcggt caccctccac ggccaggatg tcctcatgct   2340
ccctggtgac ctcgttggct tgcagcacga cgctggccct ggcgccctcc tgcactgctc   2400
gccggctccc ggccaccctg gtccccaggc cccgtacctc tccgccaacg cctcgtcatg   2460
gctgccccac ttgccagccc agctggaggg cacttgggcc tgccctgcct gtgccctgcg   2520
gctgcttgca gccacggaac agctcaccgt gctgctgggc ttgaggccca accctggact   2580
gcggatgcct gggcgctatg aggtccgggc agaggtgggc aatggcgtgt ccaggcacaa   2640
cctctcctgc agctttgacg tggtctcccc agtggctggg ctgcgggtca tctaccctgc   2700
cccccgcgac ggccgcctct acgtgcccac caacggctca gccttggtgc tccaggtgga   2760
ctctggtgcc aacgccacgg ccacggctcg ctggcctggg ggcagtgtca gcgcccgctt   2820
tgagaatgtc tgccctgccc tggtggccac cttcgtgccc ggctgcccct gggagaccaa   2880
cgataccctg ttctcagtgg tagcactgcc gtggctcagt gaggggggagc acgtggtgga   2940
cgtggtggtg gaaaacagcg ccagccgggc caacctcagc ctgcgggtga cggcggagga   3000
gcccatctgt ggcctccgcg ccacgcccag ccccgaggcc cgtgtactgc agggagtcct   3060
agtgaggtac agccccgtgg tggaggccgg ctcggacatg gtcttccggt ggaccatcaa   3120
cgacaagcag tccctgacct tccagaacgt ggtcttcaat gtcatttatc agagcgcggc   3180
ggtcttcaag ctctcactga cggcctccaa ccacgtgagc aacgtcaccg tgaactacaa   3240
cgtaaccgtg gagcggatga acaggatgca gggtctgcag gtctccacag tgccggccgt   3300
gctgtccccc aatgccacgc tagcactgac ggcgggcgtg ctggtggact cggccgtgga   3360
ggtggccttc ctgtggaact ttgggggatgg ggagcaggcc ctccaccagt tccagcctcc   3420
gtacaacgag tccttcccgg ttccagaccc ctcggtggcc caggtgctgg tggagcacaa   3480
tgtcatgcac acctacgctg ccccaggtga gtacctcctg accgtgctgg catctaatgc   3540
cttcgagaac ctgacgcagc aggtgcctgt gagcgtgcgc gcctccctgc cctccgtggc   3600
tgtgggtgtg agtgacggcg tcctggtggc cggccggccc gtcaccttct acccgcaccc   3660
gctgccctcg cctgggggtg ttctttacac gtgggacttc ggggacggct ccctgtcct   3720
gacccagagc cagccggctg ccaaccacac ctatgcctcg aggggcacct accacgtgcg   3780
cctggaggtc aacaacacgg tgagcggtgc ggcggcccag gcggatgtgc gcgtctttga   3840
ggagctccgc ggactcagcg tggacatgag cctggccgtg gagcagggcg ccccgtggt   3900
ggtcagcgcc gcggtgcaga cgggcgacaa catcacgtgg accttcgaca tggggggacgg   3960
caccgtgctg tcgggcccgg aggcaacagt ggagcatgtg tacctgcggg cacagaactg   4020
cacagtgacc gtgggtgcgg ccagccccgc cggccacctg gcccggagcc tgcacgtgct   4080
ggtcttcgtc ctggaggtgc tgcgcgttga accgccgcc tgcatcccca cgcagcctga   4140
cgcgcggctc acggcctacg tcaccgggaa cccggcccac tacctcttcg actggacctt   4200
cggggatggc tcctccaaca cgaccgtgcg ggggtgcccg acggtgacac acaacttcac   4260
gcggagcggc acgttccccc tggcgctggt gctgtccagc cgcgtgaaca gggcgcatta   4320
cttcaccagc atctgcgtgg agccagaggt gggcaacgtc accctgcagc cagagaggca   4380
gtttgtgcag ctcggggacg aggcctggct ggtggcatgt gcctggcccc cgttcccta   4440
ccgctacacc tgggactttg gcaccgagga agccgccccc acccgtgcca ggggccctga   4500
ggtgacgttc atctaccgag acccaggctc ctatcttgtg acagtcaccg cgtccaacaa   4560
catctctgct gccaatgact cagccctggt ggaggtgcag gagcccgtgc tggtcaccag   4620
catcaaggtc aatggctccc ttgggctgga gctgcagcag ccgtacctgt tctctgctgt   4680
gggccgtggg cgccccgcca gctacctgtg ggatctgggg gacggtgggt ggctcgaggg   4740
tccggaggtc acccacgctt acaacagcac aggtgacttc accgttaggg tggccggctg   4800
gaatgaggtg agccgcagcg aggcctggct caatgtgacg gtgaagcggc gcgtgcgggg   4860
gctcgtcgtc aatgcaagcc gcacggtggt gcccctgaat gggagcgtga gcttcagcac   4920
gtcgctggag gccggcagtg atgtgcgcta ttcctgggtg ctctgtgacc gctgcacgcc   4980
catccctggg ggtcctacca tctcttacac cttccgctcc gtgggcacct tcaatatcat   5040
```

110

```
cgtcacggct gagaacgagg tgggctccgc ccaggacagc atcttcgtct atgtcctgca    5100
gctcatagag gggctgcagg tggtgggcgg tggccgctac ttccccacca accacacggt    5160
acagctgcag gccgtggtta gggatggcac caacgtctcc tacagctgga ctgcctggag    5220
ggacaggggc ccggccctgg ccggcagcgg caaaggcttc tcgctcaccg tgctcgaggc    5280
cggcacctac catgtgcagc tgcgggccac caacatgctg ggcagcgcct gggccgactg    5340
caccatggac ttcgtggagc ctgtggggtg gctgatggtg accgcctccc cgaacccagc    5400
tgccgtcaac acaagcgtca ccctcagtgc cgagctggct ggtggcagtg gtgtcgtata    5460
cacttggtcc ttggaggagg ggctgagctg ggagacctcc gagccattta ccacccatag    5520
cttccccaca cccggcctgc acttggtcac catgacggca gggaacccgc tgggctcagc    5580
caacgccacc gtggaagtgg atgtgcaggt gcctgtgagt ggcctcagca tcagggccag    5640
cgagcccgga ggcagcttcg tggcggccgg gtcctctgtg cccttttggg ggcagctggc    5700
cacgggcacc aatgtgagct ggtgctgggc tgtgcccggc ggcagcagca agcgtggccc    5760
tcatgtcacc atggtcttcc cggatgctgg caccttctcc atccggctca atgcctccaa    5820
cgcagtcagc tgggtctcag ccacgtacaa cctcacggcg gaggagccca tcgtgggcct    5880
ggtgctgtgg gccagcagca aggtggtggc gcccgggcag ctggtccatt ttcagatcct    5940
gctggctgcc ggctcagctg tcaccttccg cctgcaggtc ggcggggcca accccgaggt    6000
gctccccggg ccccgtttct cccacagctt cccccgcgtc ggagaccacg tggtgagcgt    6060
gcggggcaaa aaccacgtga gctgggccca ggcgcaggtg cgcatcgtgg tgctggaggc    6120
cgtgagtggg ctgcagatgc ccaactgctg cgagcctggc atcgccacgg gcactgagag    6180
gaacttcaca gcccgcgtgc agcgcggctc tcgggtcgcc tacgcctggt acttctcgct    6240
gcagaaggtc cagggcgact cgctggtcat cctgtcgggc cgcgacgtca cctacacgcc    6300
cgtggccgcg gggctgttgg agatccaggt gcgcgccttc aacgccctgg gcagtgagaa    6360
ccgcacgctg gtgctggagg ttcaggacgc cgtccagtat gtggccctgc agagcggccc    6420
ctgcttcacc aaccgctcgg cgcagtttga ggccgccacc agccccagcc ccggcgtgt    6480
ggcctaccac tgggactttg gggatgggtc gccagggcag gacacagatg agcccagggc    6540
cgagcactcc tacctgaggc ctggggacta ccgcgtgcag gtgaacgcct ccaacctggt    6600
gagcttcttc gtggcgcagg ccacggtgac cgtccaggtg ctggcctgcc gggagccgga    6660
ggtggacgtg gtcctgcccc tgcaggtgct gatgcggcga tcacagcgca actacttgga    6720
ggcccacgtt gacctgcgcg actgcgtcac ctaccagact gagtaccgct gggaggtgta    6780
tcgcaccgcc agctgccagc ggccggggcg cccagcgcgt gtggccctgc ccggcgtgga    6840
cgtgagccgg cctcggctgg tgctgccgcg gctggcgctg cctgtggggc actactgctt    6900
tgtgtttgtc gtgtcatttg gggacacgcc actgacacag agcatccagg ccaatgtgac    6960
ggtggccccc gagcgcctgg tgcccatcat tgagggtggc tcataccgcg tgtggtcaga    7020
cacacgggac ctggtgctgg atgggagcga gtcctacgac cccaacctgg aggacggcga    7080
ccagacgccg ctcagtttcc actgggcctg tgtggcttcg acacagaggg aggctggcgg    7140
gtgtgcgctg aactttgggc cccgcgggag cagcacggtc accattccac gggagcggct    7200
ggcggctggc gtggagtaca ccttcagcct gaccgtgtgg aaggccggcc gcaaggagga    7260
ggccaccaac cagacggtgc tgatccggag tggccgggtg cccattgtgt ccttggagtg    7320
tgtgtcctgc aaggcacagg ccgtgtacga agtgagccgc agctcctacg tgtacttgga    7380
gggccgctgc ctcaattgca gcagcggctc caagcgaggg cggtgggctg cacgtacgtt    7440
cagcaacaag acgctggtgc tggatgagac caccacatcc acgggcagtg caggcatgcg    7500
actggtgctg cggcggggcg tgctgcggga cggcgaggga tacaccttca cgctcacggt    7560
gctgggccgc tctggcgagg aggagggctg cgcctccatc cgcctgtccc ccaaccgccc    7620
gccgctgggg ggctcttgcc gcctcttccc actgggcgct gtgcacgccc tcaccaccaa    7680
ggtgcacttc gaatgcacgg gctggcatga cgcggaggat gctggcgccc cgctggtgta    7740
cgccctgctg ctgcggcgct gtcgccaggg ccactgcgag gagttctgtg tctacaaggg    7800
cagcctctcc agctacggag ccgtgctgcc cccgggtttc aggccacact tcgaggtggg    7860
```

                                        111

```
cctggccgtg gtggtgcagg accagctggg agccgctgtg gtcgccctca acaggtcttt    7920
ggccatcacc ctcccagagc ccaacggcag cgcaacgggg ctcacagtct ggctgcacgg    7980
gctcaccgct agtgtgctcc cagggctgct gcggcaggcc gatccccagc acgtcatcga    8040
gtactcgttg gccctggtca ccgtgctgaa cgagtacgag cgggccctgg acgtggcggc    8100
agagcccaag cacgagcggc agcaccgagc ccagatacgc aagaacatca cggagactct    8160
ggtgtccctg agggtccaca ctgtggatga catccagcag atcgctgctg cgctggccca    8220
gtgcatgggg cccagcaggg agctcgtatg ccgctcgtgc ctgaagcaga cgctgcacaa    8280
gctggaggcc atgatgctca tcctgcaggc agagaccacc gcgggcaccg tgacgcccac    8340
cgccatcgga gacagcatcc tcaacatcac aggagacctc atccacctgg ccagctcgga    8400
cgtgcgggca ccacagccct cagagctggg agccgagtca ccatctcgga tggtggcgtc    8460
ccaggcctac aacctgacct ctgccctcat gcgcatcctc atgcgctccc gcgtgctcaa    8520
cgaggagccc ctgacgctgg cgggcgagga gatcgtggcc cagggcaagc gctcggaccc    8580
gcggagcctg ctgtgctatg gcggcgcccc agggcctggc tgccacttct ccatccccga    8640
ggctttcagc ggggccctgg ccaacctcag tgacgtggtg cagctcatct ttctggtgga    8700
ctccaatccc tttccctttg gctatatcag caactacacc gtctccacca aggtggcctc    8760
gatggcattc cagacacagg ccggcgccca gatccccatc gagcggctgg cctcagagcg    8820
cgccatcacc gtgaaggtgc ccaacaactc ggactgggct gcccggggcc accgcagctc    8880
cgccaactcc gccaactccg ttgtggtcca gccccaggcc tccgtcggtg ctgtggtcac    8940
cctggacagc agcaaccctg cggccgggct gcatctgcag ctcaactata cgctgctgga    9000
cggccactac ctgtctgagg aacctgagcc ctacctggca gtctacctac actcggagcc    9060
ccggcccaat gagcacaact gctcggctag caggaggatc cgcccagagt cactccaggg    9120
tgctgaccac cggccctaca ccttcttcat ttccccgggg agcagagacc cagcggggag    9180
ttaccatctg aacctctcca gccacttccg ctggtcggcg ctgcaggtgt ccgtgggcct    9240
gtacacgtcc ctgtgccagt acttcagcga ggaggacatg gtgtggcgga cagaggggct    9300
gctgcccctg gaggagacct cgccccgcca ggccgtctgc ctcacccgcc acctcaccgc    9360
cttcggcgcc agcctcttcg tgcccccaag ccatgtccgc tttgtgtttc ctgagccgac    9420
agcggatgta aactacatcg tcatgctgac atgtgctgtg tgcctggtga cctacatggt    9480
catggccgcc atcctgcaca agctggacca gttggatgcc agccggggcc gcgccatccc    9540
tttctgtggg cagcggggcc gcttcaagta cgagatcctc gtcaagacag gctggggccg    9600
gggctcaggt accacggccc acgtgggcat catgctgtat ggggtggaca gccggagcgg    9660
ccaccggcac ctggacggcg acagagcctt ccaccgcaac agcctggaca tcttccggat    9720
cgccaccccg cacagcctgg gtagcgtgtg gaagatccga gtgtggcacg acaacaaagg    9780
gctcagccct gcctggttcc tgcagcacgt catcgtcagg gacctgcaga cggcacgcag    9840
cgccttcttc ctggtcaatg actggctttc ggtggagacg gaggccaacg ggggcctggt    9900
ggagaaggag gtgctggccg cgagcgacgc agcccttttg cgcttccggc gcctgctggt    9960
ggctgagctg cagcgtggct tctttgacaa gcacatctgg ctctccatat gggaccggcc   10020
gcctcgtagc cgtttcactc gcatccagag ggccacctgc tgcgttctcc tcatctgcct   10080
cttcctgggc gccaacgccg tgtggtacgg ggctgttggc gactctgcct acagcacggg   10140
gcatgtgtcc aggctgagcc cgctgagcgt cgacacagtc gctgttggcc tggtgtccag   10200
cgtggttgtc tatcccgtct acctggccat cctttttctc ttccggatgt cccggagcaa   10260
ggtggctggg agcccgagcc ccacacctgc cgggcagcag gtgctggaca tcgacagctg   10320
cctggactcg tccgtgctgg acagctcctt cctcacgttc tcaggcctcc acgctgaggc   10380
ctttgttgga cagatgaaga gtgacttgtt tctggatgat tctaagagtc tggtgtgctg   10440
gccctccggc gagggaacgc tcagttggcc ggacctgctc agtgacccgt ccattgtggg   10500
tagcaatctg cggcagctgg cacggggcca ggcgggccat gggctgggcc cagaggagga   10560
cggcttctcc ctgccagcc cctactcgcc tgccaaatcc ttctcagcat cagatgaaga   10620
cctgatccag caggtccttg ccgagggggt cagcagccca gcccctaccc aagacaccca   10680
catggaaacg gacctgctca gcagcctgtc cagcactcct ggggagaaga cagagacgct   10740
```

                                   112

```
ggcgctgcag  aggctggggg  agctggggcc  acccagccca  ggcctgaact  gggaacagcc  10800
ccaggcagcg  aggctgtcca  ggacaggact  ggtggagggt  ctgcggaagc  gcctgctgcc  10860
ggcctggtgt  gcctccctgg  cccacgggct  cagcctgctc  ctggtggctg  tggctgtggc  10920
tgtctcaggg  tgggtgggtg  cgagcttccc  cccgggcgtg  agtgttgcgt  ggctcctgtc  10980
cagcagcgcc  agcttcctgg  cctcattcct  cggctgggag  ccactgaagg  tcttgctgga  11040
agccctgtac  ttctcactgg  tggccaagcg  gctgcacccg  gatgaagatg  acaccctggt  11100
agagagcccg  gctgtgacgc  ctgtgagcgc  acgtgtgccc  cgcgtacggc  caccccacgg  11160
ctttgcactc  ttcctggcca  aggaagaagc  ccgcaaggtc  aagaggctac  atggcatgct  11220
gcggagcctc  ctggtgtaca  tgcttttct   gctggtgacc  ctgctggcca  gctatgggga  11280
tgcctcatgc  catgggcacg  cctaccgtct  gcaaagcgcc  atcaagcagg  agctgcacag  11340
ccgggccttc  ctggccatca  cgcggtctga  ggagctctgg  ccatggatgg  cccacgtgct  11400
gctgccctac  gtccacggga  accagtccag  cccagagctg  gggcccccac  ggctgcggca  11460
ggtgcggctg  caggaagcac  tctacccaga  ccctcccggc  cccagggtcc  acacgtgctc  11520
ggccgcagga  ggcttcagca  ccagcgatta  cgacgttggc  tgggagagtc  ctcacaatgg  11580
ctcggggacg  tgggcctatt  cagcgccgga  tctgctgggg  gcatggtcct  ggggctcctg  11640
tgccgtgtat  gacagcgggg  gctacgtgca  ggagctgggc  ctgagcctgg  aggagagccg  11700
cgaccggctg  cgcttcctgc  agctgcacaa  ctggctggac  aacaggagcc  gcgctgtgtt  11760
cctggagctc  acgcgctaca  gcccggccgt  ggggctgcac  gccgccgtca  cgctgcgcct  11820
cgagttcccg  gcggccggcc  gcgccctggc  cgccctcagc  gtccgcccct  ttgcgctgcg  11880
ccgcctcagc  gcgggcctct  cgctgcctct  gctcacctcg  gtgtgcctgc  tgctgttcgc  11940
cgtgcacttc  gccgtggccg  aggcccgtac  ttggcacagg  gaagggcgct  ggcgcgtgct  12000
gcggctcgga  gcctgggcgc  ggtggctgct  ggtggcgctg  acggcggcca  cggcactggt  12060
acgcctcgcc  cagctgggtg  ccgctgaccg  ccagtggacc  cgtttcgtgc  gcggccgccc  12120
gcgccgcttc  actagcttcg  accaggtggc  gcagctgagc  tccgcagccc  gtggcctggc  12180
ggcctcgctg  ctcttcctgc  ttttggtcaa  ggctgcccag  cagctacgct  tcgtgcgcca  12240
gtggtccgtc  tttggcaaga  cattatgccg  agctctgcca  gagctcctgg  gggtcacctt  12300
gggcctggtg  gtgctcgggg  tagcctacgc  ccagctggcc  atcctgctcg  tgtcttcctg  12360
tgtggactcc  ctctggagcg  tggcccaggc  cctgttggtg  ctgtgccctg  ggactgggct  12420
ctctaccctg  tgtcctgccg  agtcctggca  cctgtcaccc  ctgctgtgtg  tggggctctg  12480
ggcactgcgg  ctgtggggcg  ccctacggct  gggggctgtt  attctccgct  ggcgctacca  12540
cgccttgcgt  ggagagctgt  accggccggc  ctgggagccc  caggactacg  agatggtgga  12600
gttgttcctg  cgcaggctgc  gcctctggat  gggcctcagc  aaggtcaagg  agttccgcca  12660
caaagtccgc  tttgaaggga  tggagccgct  gccctctcgc  tcctccaggg  gctccaaggt  12720
atccccggat  gtgcccccac  ccagcgctgg  ctccgatgcc  tcgcacccct  ccacctcctc  12780
cagccagctg  gatgggctga  gcgtgagcct  gggccggctg  gggacaaggt  gtgagcctga  12840
gccctcccgc  ctccaagccg  tgttcgaggc  cctgctcacc  cagtttgacc  gactcaacca  12900
ggccacagag  gacgtctacc  agctggagca  gcagctgcac  agcctgcaag  gccgcaggag  12960
cagccgggcg  cccgccggat  cttcccgtgg  cccatccccg  ggcctgcggc  cagcactgcc  13020
cagccgcctt  gcccgggcca  gtcggggtgt  ggacctggcc  actggcccca  gcaggacacc  13080
ccttcgggcc  aagaacaagg  tccaccccag  cagcacttag  tcctccttcc  tggcggggt   13140
gggccgtgga  gtcggagtgg  acaccgctca  gtattacttt  ctgccgctgt  caaggccgag  13200
ggccaggcag  aatggctgca  cgtaggttcc  ccagagagca  ggcaggggca  tctgtctgtc  13260
tgtgggcttc  agcactttaa  agaggctgtg  tggccaacca  ggacccaggg  tcccctcccc  13320
agctcccttg  ggaaggacac  agcagtattg  gacggtttct  agcctctgag  atgctaattt  13380
atttccccga  gtcctcaggt  acagcgggct  gtgccggcc   ccacccctg   ggcagatgtc  13440
ccccactgct  aaggctgctg  gcttcaggga  gggttagcct  gcaccgccgc  caccctgccc  13500
ctaagttatt  acctctccag  ttcctaccgt  actccctgca  ccgtctcact  gtgtgtctcg  13560
```

113

```
tgtcagtaat ttatatggtg ttaaaatgtg tatattttg tatgtcacta ttttcactag   13620
ggctgagggg cctgcgccca gagctggcct cccccaacac ctgctgcgct tggtaggtgt   13680
ggtggcgtta tggcagcccg gctgctgctt ggatgcgagc ttggccttgg gccggtgctg   13740
ggggcacagc tgtctgccag gcactctcat caccccagag gccttgtcat cctcccttgc   13800
cccaggccag gtagcaagag agcagcgccc aggcctgctg gcatcaggtc tgggcaagta   13860
gcaggactag gcatgtcaga ggaccccagg gtggttagag gaaaagactc ctcctggggg   13920
ctggctccca gggtggagga aggtgactgt gtgtgtgtgt gtgtgcgcgc gcgacgcgcg   13980
agtgtgctgt atggcccagg cagcctcaag gccctcggag ctggctgtgc ctgcttctgt   14040
gtaccacttc tgtgggcatg gccgcttcta gagcctcgac accccccaa ccccgcacc     14100
aagcagacaa agtcaataaa agagctgtct gactgc                             14136

<210>   245
<211>   3880
<212>   DNA
<213>   Homo sapiens

<400>   245
gctcgagtgc caaagctggg gttctacttg agatttccct cgtggtgcca gggtccggcg    60
agcatcacgc cgaggcccat tttccagacg accacgacga ggccggggtc acgaactctg   120
gcgcccctta ccagcttcca gtctctcgag gtggccagtg tggtgcttgg tccttgtttc   180
caggatggac ttccccagct ccctccgccc tgcgttgttt ctgaccggcc cccttggtct   240
gagcgacgtc cctgacctct ctttcatgtg cagctggcga gacgcactga ctctgccaga   300
ggcccagccc cagaactcag agaatggggc actgcatgtg accaaggacc tgctgtggga   360
gccggcaacc cctgggcctc tccccatgct gcctcccctc atcgatccct gggaccctgg   420
cctgactgcc cgggacctgc ttttccgcgg agggtaccgg tatcggaagc ggccccgagt   480
cgtgctggat gtgactgagc agatcagccg gttcctcttg gatcatggag acgtagcctt   540
tgcgcccctg gggaagctga tgctggagaa tttcaagctg gagggagcgg ggagccgcac   600
taagaagaag acagtggtca gtgtgaagaa gctgctccag gacctcggtg gacaccagcc   660
ctgggggtgt ccctgggctt acctcagcaa ccgacagcgc cgcttctcta tcctcggggg   720
ccccatcctg ggcacgtcgg tggcgagcca cttggcagag ctgctgcacg aggagctggt   780
gctgcggtgg gagcagctgc ttctggatga ggcctgcact ggggggcgcgc tggcctgggt   840
tcctggaagg acaccccagt tcgggcagct ggtctaccct gctggaggcg cccaggacag   900
gctgcatttc caagaggtcg ttctgacccc aggtgacaat ccccaattcc ttgggaaacc   960
tggacgcatc cagctccagg gacctgtccg gcaagtggtg acatgcaccg tccagggaga  1020
aagtaaggcc cttatataca ctttcctccc tcactggctg acctgctacc tgacccctgg   1080
cccttttccat ccctcctcag ctctgctggc cgtccgctct gactaccact gtgccgtgtg  1140
gaagtttggt aaacagtggc agccaaccct tctgcaggcg atgcaggtgg agaaaggggc  1200
cacggggatc agcctcagcc ctcacctgcc cggggagctg gccatctgca gccgctcggg  1260
agccgtctgc ctgtggagcc ctgaggatgg gctgcggcaa atctacaggg accctgagac  1320
cctcgtgttc cgggactcct cttcgtggcg ttgggcagac ttcactgcgc accctcgggt  1380
gctgaccgtg ggtgaccgca ccggagtgaa gatgctggac actcagggcc cgccgggctg  1440
tggtctgttg cttttttcgtt tgggggcaga ggcttcgtgc cagaaagggg aacgtgtcct  1500
gcttacccag tacctggggc actccagccc caaatgcctc cccctactc ttcatctcgt   1560
ctgtacccag ttctctctct acctagtgga cgagcgcctt cccctggtgc cgatgctgaa  1620
gtggaaccat ggcctcccct ccccgctcct gctggcccga ctgctgcctc cgccccggcc  1680
cagctgcgtg cagcccctgc tcctcggagg ccagggtggg cagctgcagc tgctgcacct  1740
ggcaggagaa ggggcgtcgg tgccccgcct ggcaggcccc ccccagtctc ttccttccag  1800
gatcgactcc ctccctgcat ttcctctgct ggagcctaag atccagtggc ggctgcagga  1860
gcgcctgaaa gcaccgacca taggtctggc tgccgtcgtc ccgcccttgc cctcagcgcc  1920
```

114

```
cacaccaggc ctggtgctct tccagctctc ggcggcggga gatgtcttct accagcagct   1980
ccgcccccag gtggactcca gcctccgcag agatgctggg cctcctggcg acacccaacc   2040
tgactgccat gcccccacag cttcctggac ctcccaggac actgccggct gcagccagtg   2100
gctgaaggcc ctgctaaaag tgcccctggc tcctcctgtg tggacagcac ccaccttcac   2160
ccaccgccag atgctgggca gcacagagct gcggagggag gaagaggaag ggcagcggct   2220
gggtgtgctc cgcaaggcca tggcccgagg gcagctcctg ctgcagagag acctgggctc   2280
cctccctgcg gcagagccac ccCctgcacc cgagtcaggc ctagaggaca agctcagtga   2340
gcgcctgggg gaagcctggg caggccgagg ggctgcctgg tgggagaggc agcagggcag   2400
gacctcggag cccgggagac agaccaggcg gcccaagcgc cggacccagc tgtccagcag   2460
cttttcgctc agtggccatg tggatccgtc agaggacacc agctcccctc atagccctga   2520
gtggccacct gctgatgctc tgcccctgcc ccccacgacc ccgccctccc aggagttgac   2580
tccggatgca tgcgcccagg gcgtcccatc agagcagcgg cagatgctcc gtgactacat   2640
ggccaagcta ccacccccaga gggacacccc aggctgtgcc accacacctc cccactccca   2700
ggcctccagc gtccgggcca ctcgctccca gcagcacaca cccgtcctct ctagctctca   2760
gcccctccgg aagaagcctc gaatgggctt ctgaggacac aaggtgggct gccctcaagc   2820
cccagagagc ccctcatcct tcctctggga ccagatgtgc cttccacagt tgaaacttga   2880
gaagcagagc tcgccacctt ctggaggcca ctgtgatgat gagccaagca atttggagcc   2940
aagttgaagg gacagggcaa caaaatacag tagtagtttc ttttgtattt tgtatattcg   3000
cctgaagatc atcccgcaag gcaggctgga ggtgccggtg ggcctgtgtt gctgggattt   3060
tagtctgtgc tgggaggcag ggctccgtgc gcctcagctg tgggggcctc aggcaggtcc   3120
ctcagttctc acgccttcct gtccagtgga atgggggcca ggagtgctgg ctcctcgtgt   3180
ttggtgaggg tggagtgagg cccctgcaga gctgctgatg aggtgggcac agcggccgtt   3240
ggcagctgct gttgtgggtt gctttgtcaa tctctgcccc ggtctgatgt ttcctacagg   3300
gagatgccgt ggatccaggt tcagggacta aatacacttg gcagctgaag atgaattgga   3360
atggtcacgt tttttaggct ggacagcgtc ccgccacagc tactacctga cactgagctc   3420
atgcagagag atgatggctg atgttccttc tcccttggga catgggtctg gcacctgtgg   3480
gctgtcgata gtgccctctg agcagagggt cacggtcatg tcagtttggg ggaattctct   3540
gttgtgcctc agagactccc cccttctttt cctccctccc cttctcattt tgatgtctaa   3600
agcatcaagt ccctcttcct cagagtttct ctagctgcag tggaagattc tgttttcctg   3660
tggggaaaat gctcacttga gattttgcag ggaccgggt ctgtctggtt tctgatgaca   3720
tagtaagaga aaggtctttt ttcaggttgg ctggtgaaag gaattgcatg tgactcacac   3780
aaacaggagc tagcccaatc atacactgac tcgcgtgggt gtttaaatgt ttatcatgcc   3840
taagggagac atttataatt aaaccattta tgctacataa                         3880
```

<210> 246
<211> 2146
<212> DNA
<213> Homo sapiens

<400> 246
```
tactcccgga gtcactcatc ccttaagcaa gcagggtggg gttaggtgcg cgtgcgcggt    60
tttaatactc ctccccgaac tgccaactct tcacgcacgc gaagtaggcc ccaccctggc   120
tgggtttacg cgtgcgcact aacgggcctg gtcccggaag accacacgcg tgcgtggtgg   180
ggactacggt gacagtaccc cgggtggggc gagggccagt catggcggag tcctggtctg   240
ggcaggcctt gcaggctctg ccggccacgg tgctgggcgc gctgggcagc gagttcttgc   300
gggagtggga ggcgcaggac atgcgcgtga ccctcttcaa gctgctgctg ctgtggttgg   360
tgttaagtct cctgggcatc cagctggcgt gggggttcta cgggaataca gtgaccgggt   420
tgtatcaccg tccaggtctg ggtggtcaga atggatccac gcctgatggc tccacgcatt   480
```

115

```
tcccttcgtg ggaaatggca gcaaacgaac ctctcaaaac ccacagagaa taagggaagg      540
cagcagaggg tctccaaggg catcactggg tctgctggct tctacactgg gttctgctac      600
tccccagacc tcagggacaa ctgccggggg ttcagggttg gtagcaggga gtacccagtg      660
cctacagggc tgggcctctt ctgcctctta agcctgctcc ctcacccagg cactgggcaa      720
gtgaagagtt tgcctgtact cttatctggg tgccttaagg agagagattg tgttcttcct      780
ctctcagggg tgataactca ggaagcctct gggttgggaa gaccatcagt tcttttgtct      840
taggtttctt ttcctgtccc tcttccatcc ccaagatgtg accccataaa aatttttcct      900
gagttggcca ggcatggtgg ctcacgcctg taatcccaac actttgggag gctgaggcag      960
gcagatcacg aggtcaggag ttcgagacca gcctgaccaa catggtgaaa accccatctc     1020
tactaaaaat acaaaaatta gccgggtgtg gtggcacaca ccagtaatcc cagctactcg     1080
ggaggctgaa gcaggagatt tgcttgaacc tgggaggcag aggttgcagt gagccaagat     1140
tgcgccgttg tactccagcc tgggcaacag agcaagaccc atctcaaaaa aaaaattttt     1200
ttcctgagag gaagcctgag gttgaccagc tctggggttt gtaaggcagg tctgttttct     1260
cctaggccct gagttttctg aatctctggt tttgctttgt tggcaaggag ccagggaatc     1320
ctgacctgag ccagacctta agctctatgg ttatttagct ggccattcag gtataaggca     1380
gggtggtgta cctgctggca ctatccagat ggaggcacca aacacccaca tacctggccc     1440
aaccagactt ctcccgtgag ccaggcaaag gaaattgtca tctgccaact gtcctactca     1500
tattcctctc agtccttctt gggggtaagc tgattacctg aaggacagct gaacccctgg     1560
ggtagcctcc tatccaccac tgcttaagtg cctatgggaa tgtgggtctg caccttgtcc     1620
cctcatagga tggtaccaag catttagtgc acagtggccc catcatagcc tgcagcctca     1680
tcatttccca tctggacctg gtacaaatgc acgtcacagg ctcagctcct ccccactagc     1740
atcttctcta ccttcaagaa ccaggcagcc ctgccatgtc acaataggcc aggggagttt     1800
ccaaagatgt gggtggcaaa tgcccctata gaaacaccag tacctgaaag cactgtagcc     1860
ctggacctgc ctccttccct cggggccata cttctgtttc catctgctgg gccaccagcc     1920
actttagtga cccctgccta cttccttcct gttggatatc atacttccat ctggctgcct     1980
ttgcttaagc catctttgtg gtagaggggc cctggaattg cagctgtact gaggatgatg     2040
ttattcacag cccctggccc acccactaat actactgcac agagtcagga tctcacattt     2100
caccccaggc tcaactgagg atgtggctta ttaaacacgg aagtgc                    2146
```

<210>   247
<211>   423
<212>   DNA
<213>   Homo sapiens

<400>   247
```
ccggaagtga ctgcggacga atcggcgttt gccgaggctg gcatagattt ggctgtctcc       60
gctcatagct gcttttggcg cgaaagatgc cgggtctggt tgactcaaac cctgccccgc      120
ctgagtctca ggagaagaag ccgctgaagc cctgctgcgc ttgcccggag accaagaagg      180
cgcgcgatgc gtgtatcatc gagaaaggag aagaacactg tggacatcta attgaggccc      240
acaaggaatg catgagagcc ctaggattta aaatatgaaa tggtggtctg ctgtgtgaat      300
aaataattcc tgaagaatga agaagattaa ttttgggagt tctttgacga actttgatat      360
gtggaaaaag tatttataat ttattgtaag aagaaagtaa aatattacta gtggaagatc      420
ttc                                                                    423
```

<210>   248
<211>   2267
<212>   DNA
<213>   Homo sapiens

<400> 248
```
ggtagtagca aatattcaaa tgagaacagc ttgaagaccg ttcatttta agtgacaaga      60
gactcacctc caagaagcaa ttgtgttttc agaatgattt tattcaagca agcaacttat     120
ttcatttcct tgtttgctac agtttcctgt ggatgtctga ctcaactcta tgaaaacgcc     180
ttcttcagag gtggggatgt agcttccatg tacaccccaa atgcccaata ctgccagatg     240
aggtgcacat tccacccaag gtgtttgcta ttcagttttc ttccagcaag ttcaatcaat     300
gacatggaga aaaggtttgg ttgcttcttg aaagatagtg ttacaggaac cctgccaaaa     360
gtacatcgaa caggtgcagt ttctggacat tccttgaagc aatgtggtca tcaaataagt     420
gcttgccatc gagacattta taaaggagtt gatatgagag gagtcaattt taatgtgtct     480
aaggttagca gtgttgaaga atgccaaaaa aggtgcacca ataacattcg ctgccagttt     540
ttttcatatg ccacgcaaac atttcacaag gcagagtacc ggaacaattg cctattaaag     600
tacagtcccg gaggaacacc taccgctata aaggtgctga gtaacgtgga atctggattc     660
tcactgaagc cctgtgccct ttcagaaatt ggttgccaca tgaacatctt ccagcatctt     720
gcgttctcag atgtggatgt tgccagggtt ctcactccag atgctttgt gtgtcggacc     780
atctgcacct atcaccccaa ctgcctcttc tttacattct atacaaatgt atggaaaatc     840
gagtcacaaa gaaatgtttg tcttcttaaa acatctgaaa gtggcacacc aagttcctct     900
actcctcaag aaaacaccat atctggatat agccttttaa cctgcaaaag aactttacct     960
gaaccctgcc attctaaaat ttacccggga gttgactttg gaggagaaga attgaatgtg    1020
acttttgtta aaggagtgaa tgtttgccaa gagacttgca caaagatgat tcgctgtcag    1080
tttttcactt attctttact cccagaagac tgtaaggaag agaagtgtaa gtgtttctta    1140
agattatcta tggatggttc tccaactagg attgcgtatg ggacacaagg gagctctggt    1200
tactctttga gattgtgtaa cactggggac aactctgtct gcacaacaaa aacaagcaca    1260
cgcattgttg gaggaacaaa ctcttcttgg ggagagtggc cctggcaggt gagcctgcag    1320
gtgaagctga cagctcagag gcacctgtgt ggagggtcac tcataggaca ccagtgggtc    1380
ctcactgctg cccactgctt tgatgggctt cccctgcagg atgtttggcg catctatagt    1440
ggcatttaa atctgtcaga cattacaaaa gatacacctt tctcacaaat aaaagagatt    1500
attattcacc aaaactataa agtctcagaa gggaatcatg atatcgcctt gataaaactc    1560
caggctcctt tgaattacac tgaattccaa aaaccaatat gcctaccttc caaaggtgac    1620
acaagcacaa tttataccaa ctgttgggta accggatggg gcttctcgaa ggagaaaggt    1680
gaaatccaaa atattctaca aaaggtaaat attcctttgg taacaaatga agaatgccag    1740
aaaagatatc aagattataa aataacccaa cggatggtct gtgctggcta taaagaaggg    1800
ggaaaagatg cttgtaaggg agattcaggt ggtcccttag tttgcaaaca caacggaatg    1860
tggcgtttgg tgggcatcac aagctggggt gaaggctgtg cccgcaggga gcaacctggt    1920
gtctacacca aagtcgctga gtacatggac tggattttag agaaaacaca gagcagtgat    1980
ggaaaagctc agatgcagtc accagcatga gaagcagtcc agagtctagg caatttttac    2040
aacctgagtt caagtcaaat tctgagcctg gggggtcctc atctgcaaag catggagagt    2100
ggcatcttct ttgcatccta aggacgaaag acacagtgca ctcagagctg ctgaggacaa    2160
tgtctgctga agcccgcttt cagcacgccg taaccagggg ctgacaatgc gaggtcgcaa    2220
ctgagatctc catgactgtg tgttgtgaaa taaaatggtg aaagatc                  2267
```

<210> 249
<211> 2595
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

117

<400> 249
```
tctagaccac cagcctggac aacataccaa gaccctgtct ctacaaataa atagataaat      60
aaatagacac ttttttttaag tgtcaaaagt gcttggcact tagtagacca tcagtgttag     120
gtgctcatac atacccccgat tattgccttg tcccagtgtc ttgtacaggg gttggagagn     180
aggtgttaag aaatgaccga atgggtaaat ggatgaacag aacacctccc tccagagccc     240
acatgctcgt gggcctctgg gaccactctc ctcctcctct tgcttccctg agctcccca     300
gcatggcctc tgtccaggcc ttgcgctgcc tccaggcctt tgctgtggct actgcccctg     360
gagcgccatn tccacagctc ctcctgtggc tggctcctca tcacccagat gacctggtgg     420
gtgaggccac ctagcaagga gtcatgcctg tcctgccttc tgactcactc tctcatcacc     480
ctgcctttt tttcttttgt ggctcacgtg tttgcatgtc tcccccatg aggcagggg      540
ccatgtgtgt cttattcact tctgtagcca cagcaccctg agcaatgctt gccacatagt     600
aggtgctcaa ttaatgttga atgaatgggc aaaatgcggg atggcgggac agagttctct     660
caaggcattc tgccagagaa tgtccctctg tcaccttgaa tccagtgtac ctccagatga     720
ctcccccatt ccctcctgta gttcatgctt ttctctcccc ttcctcccca gacacggcct     780
acccacccct ggcaaccaac atggccaact tcacacctgt caatggcagc tcgggcaatc     840
agtccgtgcg cctggtcacg tcatcatccc acaatcgcta tgagacggtg gaaatggtct     900
tcattgccac agtgacaggc tccctgagcc tggtgactgt cgtgggcaac atcctggtga     960
tgctgtccat caaggtcaac aggcagctgc agacagtcaa caactacttc ctcttcagcc    1020
tggcgtgtgc tgatctcatc ataggcgcct tctccatgaa cctctacacc gtgtacatca    1080
tcaagggcta ctggccctg ggcgccgtgg tctgcgacct gtggctggcc ctggactacg    1140
tggtgagcaa cgcctccgtc atgaaccttc tcatcatcag ctttgaccgc tacttctgcg    1200
tcaccaagcc tctcacctac cctgcccggc gcaccaccaa gatggcaggc ctcatgattg    1260
ctgctgcctg ggtactgtcc ttcgtgctct gggcgcctgc catcttgttc tggcagtttg    1320
tggtgggtaa gcggacggtg cccgacaacc actgcttcat ccagttcctg tccaacccag    1380
cagtgacctt tggcacagcc attgctgcct tctacctgcc tgtggtcatc atgacggtgc    1440
tgtacatcca catctccctg gccagtcgca gccgagtcca caagcaccgg cccgagggcc    1500
cgaaggagaa gaaagccaag acgctggcct tcctcaagag cccactaatg aagcagagcg    1560
tcaagaagcc ccgcccggga ggccgcccgg gaggactgcg caatggcaag ctggaggagg    1620
cccccccgcc agcgctgcca ccgccaccgc gccccgtggc tgataaggac acttccaatg    1680
agtccagctc aggcagtgcc acccagaaca ccaaggaacg cccagccaca gagctgtcca    1740
ccacagaggc caccactccc gccatgcccg cccctcccct gcagccgcgg gccctcaacc    1800
cagcctccag atggtccaag atccagattg tgacgaagca gacaggcaat gagtgtgtga    1860
cagccattga gattgtgcct gccacgccgg ctggcatgcg ccctgcggcc aacgtggccc    1920
gcaagttcgc cagcatcgct cgcaaccagg tgcgcaagaa gcggcagatg cggcccggg     1980
agcgcaaagt gacacgaacg atctttgcca ttctgctagc cttcatcctc acctggacgc    2040
cctacaacgt catggtcctg gtgaacacct tctgccagag ctgcatccct gacacggtgt    2100
ggtccattgg ctactggctc tgctacgtca acagcaccat caaccctgcc tgctatgctc    2160
tgtgcaacgc caccttaaaa agaccttcc ggcacctgct gctgtgccag tatcggaaca    2220
tcggcactgc caggtaggca ggcaggagtg ccctaggagg tgcggtgtgc gtgcgtgtgc    2280
tggggaacca cacggctcac ttgctgtggg aagagtgca ggcaccattc tgcgttcacg    2340
tttgctgagg aggaagttca gaagaggctc tgtggctgca ttcagagacc agatctctgc    2400
tcacccgtga ggaggctcac cccagggagt gtctgaactg gggctgcctg gcccacctct    2460
gtggccctgc ttcagcgagc tgcggggcac tggcctgggt gggcacctgc ccactgtgac    2520
caaccatcag cagtgctgga agaatggaga tctggatggg ggccgaagcc cagggccccc    2580
tcaggaagaa caaag                                                     2595
```

<210> 250
```

118

<211> 1923
<212> DNA
<213> Homo sapiens

<400> 250
```
gctgagcatc gccagggcgg gcggcagggc gcggcctctc cgccgggtgt acctcctgtc   60
gcggcgcgag acctctggtg aaagaaaaga tgttgtcccg gttaagagta gtttccacca   120
cttgtacttt ggcatgtcga catttgcaca taaaagaaaa aggcaagcca cttatgctga   180
acccaagaac aaacaaggga atggcattta ctttacaaga acgacaaatg cttggtcttc   240
aaggacttct acctcccaaa atagagacac aagatattca agccttacga tttcatagaa   300
acttgaagaa aatgactagc cctttggaaa aatatatcta cataatggga atacaagaaa   360
gaaatgagaa attgtttat agaatactgc aagatgacat tgagagttta atgccaattg   420
tatatacacc gacggttggt cttgcctgct cccagtatgg acacatcttt agaagaccta   480
aggattatt tatttcgatc tcagacagag gtcatgttag atcaattgtg gataactggc   540
cagaaaatca tgttaaggct gttgtagtga ctgatggaga gagaattctg ggtcttggag   600
atctgggtgt ctatggaatg ggaattccag taggaaaact ttgtttgtat acagcttgtg   660
caggaatacg gcctgataga tgcctgccag tgtgtattga tgtgggaact gataatatcg   720
cactcttaaa agacccattt tacatgggct tgtaccagaa acgagatcgc acacaacagt   780
atgatgacct gattgatgag tttatgaaag ctattactga cagatatggc cggaacacac   840
tcattcagtt cgaagacttt ggaaatcata atgcattcag gttcttgaga aagtaccgag   900
aaaaatattg tactttcaat gatgatattc aagggacagc tgcagtagct ctagcaggtc   960
ttcttgcagc acaaaaagtt attagtaaac caatctccga acacaaaatc ttattccttg   1020
gagcaggaga ggctgctctt ggaattgcaa atcttatagt tatgtctatg gtagaaaatg   1080
gcctgtcaga acaagaggca caaaagaaaa tctggatgtt tgacaagtat ggtttattag   1140
ttaagggacg gaaagcaaaa atagatagtt atcaggaacc atttactcac tcagccccag   1200
agagcatacc tgatactttt gaagatgcag tgaatatact gaagccttca actattattg   1260
gagttgcagg tgctggccgt cttttcactc ctgatgtaat cagagccatg gcctctatca   1320
atgaaaggcc tgtaatattt gcattaagta tcctacagc acaggcagag tgcacggctg   1380
aagaagcata tacacttaca gagggcaggt gtttgtttgc cagtggcagt ccattgggc   1440
cagtgaaact tacagatggg cgagtcttta caccaggtca aggaaacaat gtttatattt   1500
ttccaggtgt ggctttagct gttattctct gtaacacccg gcatattagt gacagtgttt   1560
tcctagaagc tgcaaaggcc ctgacaagcc aattgacaga tgaagagcta gcccaaggga   1620
gactttaccc accgcttgct aatattcagg aagtttctat taacattgct attaaagtta   1680
cagaatacct atatgctaat aaaatggctt tccgatacc agaacctgaa gacaaggcca   1740
aatatgttaa agaaagaaca tggcggagtg aatatgattc cctgctgcca gatgtgtatg   1800
aatggccaga atctgcatca agccctcctg tgataacaga atagaagcac tcccctgata   1860
aatactttct gtgctccagg gaaccccttt tttcagacaa gaagagataa tgtcttcagt   1920
ttt   1923
```

<210> 251
<211> 1029
<212> DNA
<213> Homo sapiens

<400> 251
```
tctgctttta ataagcttcc caatcagctc tcgagtgcaa agcgctctcc ctccctcgcc   60
cagccttcgt cctcctggcc cgctcctctc atccctccca ttctccattt cccttccgtt   120
ccctccctgt cagggcgtaa ttgagtcaaa ggcaggatca ggttccccgc cttccagtcc   180
aaaaatcccg ccaagagagc cccagagcag aggaaaatcc aaagtggaga gaggggaaga   240
```

119

```
aagagaccag tgagtcatcc gtccagaagg cggggagagc agcagcggcc caagcaggag    300
ctgcagcgag ccgggtacct ggactcagcg gtagcaacct cgccccttgc aacaaaggca    360
gactgagcgc cagagaggac gtttccaact caaaaatgca ggctcaacag taccagcagc    420
agcgtcgaaa atttgcagct gccttcttgg cattcatttt catactggca gctgtggata    480
ctgctgaagc agggaagaaa gagaaaccag aaaaaaaagt gaagaagtct gactgtggag    540
aatggcagtg gagtgtgtgt gtgcccacca gtggagactg tgggctgggc acacgggagg    600
gcactcggac tggagctgag tgcaagcaaa ccatgaagac ccagagatgt aagatccct    660
gcaactggaa gaagcaattt ggcgcggagt gcaaatacca gttccaggcc tggggagaat    720
gtgacctgaa cacagccctg aagaccagaa ctggaagtct gaagcgagcc ctgcacaatg    780
ccgaatgcca gaagactgtc accatctcca gccctgtgg caaactgacc aagcccaaac    840
ctcaagcaga atctaagaag aagaaaaagg aaggcaagaa acaggagaag atgctggatt    900
aaaagatgtc acctgtggaa cataaaaagg acatcagcaa acaggatcag ttaactattg    960
catttatatg taccgtaggc tttgtattca aaaattatct atagctaagt acacaataag   1020
caaaaacaa                                                           1029

<210>  252
<211>  2678
<212>  DNA
<213>  Homo sapiens

<400>  252
cggccggcca atacatagga acacttgggt ccctgcagtc agggtgtgga aatggcagat     60
gagttcagcc ctaaggtgca ttttttcttac taggaggaga tggagtgtat tttatgggat    120
ataagcatta gctacatttc ctgtcctgtt cacatccttt gcccatgtgt ctatgaggtt    180
attgatcttc ttactgattt attgtagctc tttacttagg aggttaatta gcctttttgcc    240
tgtggagagt ttttttggttt gccatttgtc ctttttttaat ttttttttgtt ttttggccat    300
ttgtcttttg actccgatgt ggttttttgct gatttccttt gatgtattct agtttatctg    360
acttttcttt ggcgacttat ggactttctc tcaccactaa aagccctcac tgctctctca    420
gtcttcttga tttaacctcc tccaggcttc cgccttctcc aggccctgat tctcagttgg    480
agttgctggt gcctcctcct tcacccagcg tctgacgctg gagtgctcac agtgtggctg    540
ggacccactt ctctcctctg tagataccca cccctgtgtt gatcacttgc aggcccgggt    600
tctgtgtgcc atgtgtatgc cctagagccc ttgctcacgt ttccccacag ccttcatgaa    660
gtctgtgttc ctcagatgcc ccacagacat cacaagcaag gcacatccaa accccagacc    720
actatccagg agcctgcacc ctctttctgt tggctccacc tccagcctcc gagacccacc    780
cacttccctg catttgctga gaccatcatt ttccacctag acaatgcccc cacgcttgcc    840
ctacagccct tccaaaaacg atttttttcca acttaaatca gactagaaag ctttttcaca    900
tagcccagtc ttcctccttg tgctgggttc tgtctcatta tcacctcatc agggaagtct    960
gtacagatag aatccctacc cctgcatttg tcgcctccgt ctgcctcttt ggtcagtttc   1020
aggtccctgt agttcacact gtgtccccag ggatgaagtg ggtcccggca cggtgggcat   1080
tctgtcatga atgaatggtc cccttgtgta tgcagggttc gcgctgcagc taggcagcat   1140
ctccgcaggt ccaggtagtg taagccctca cctccacgtc ccctgggacc tcggcatggc   1200
tggcctttct ggccagatcc aatcaccctc ccgcgaaggt ggctttgcgc atcgcgttct   1260
gctccccagc gatctgagga gtgaacagga ccccacggac gaggatccct gccggggtgt   1320
gggccctgct ctgatcacca cccgctggcg ctcccccagg gccggagcc ggggccgccc   1380
cagcactggg ggcggggtgg ttaggggcgg ccgttgcgat gtatgtggca aggtgttcag   1440
ccaacgcagc aacctgctga ggcaccagaa gatccacacg ggtgagcgac cattcgtgtg   1500
cagcgagtgc ggccgcagct tcagccgcag ctcgcacctg ctgcgccacc agcttacgca   1560
caccgaggag cggccgttcg tgtgcggcga ctgtggccag ggcttcgtgc gcagcgcgcg   1620
cctggaagag catcggagag tgcacacggg cgaacagcct ttccgttgcg ctgagtgcgg   1680
```

120

```
ccagagcttc cggcagcgct ccaatctgct gcagcaccag cgcatccacg gcgatccccc    1740
gggccctggc gctaagcccc cggcccctcc tggtgcgccc gagcctcccg gcccctttcc    1800
gtgcagcgag tgccgcgaga gcttcgcgcg gcgcgccgtg ctgctggagc accaggcggt    1860
acacacgggc gacaagtcct ttggctgcgt cgagtgcggc gagcgcttcg gccgccgctc    1920
agtgctgctg cagcaccggc gcgtgcacag tggcgagcgg cccttcgcct gtgccgagtg    1980
cggccagagc ttccggcagc gctccaacct gacgcagcac cggcgcatcc acaccgggga    2040
gcggcccttc gcctgcgccg agtgtggcaa ggccttccgc cagcggccta cgctcacgca    2100
gcatctccgc gtacacacgg gcgagaaacc ctttgcctgc cccgagtgtg gccagcgctt    2160
cagccagcgc ctcaagctca cgcgtcatca gaggacacac accggcgaaa agccctacca    2220
ctgcggtgag tgcggcctgg gcttcacgca ggtctcgcgg ctcaccgagc accagcgcat    2280
ccacacgggc gaacggccct tcgcctgccc cgagtgcggc cagagctttc ggcagcacgc    2340
caacctcacc cagcaccggc gcatccacac gggtgaacgg ccctacgcat gccctgagtg    2400
tggcaaggcc ttccgccagc ggcccacgct cacgcagcat ctgcgcaccc accgacgaga    2460
gaagcccttc gcctgccagg actgtggccg ccgcttccac cagagcacca agctcattca    2520
gcaccagcgc gtccacagcg ccgagtagct ccagccggga cgcactgtgt ccgccatggt    2580
cctcccctgg ttattgtgag gctggcgatt acataagtat aagcaggtcg cccagggctt    2640
ggctactgta ggtgtccaat aaacagtaga tggaaacc                            2678
```

<210>   253
<211>   2373
<212>   DNA
<213>   Homo sapiens

<400>   253
```
gaattcgggc gggggcgccg cccggggccc tgagggctgg ctagggtcca ggccggggggg     60
gacgggacag acgaaccagc cccgtgtagg aagcgcgaca atgccccgct acggagcgtc    120
actccgccag agctgcccca ggtccggccg ggagcaggga caagacggga ccgccggagc    180
ccccggactc cttttggatgg gcctggtgct ggcgctggcg ctggcgctgg cgctggctct    240
gtctgactct cgggttctct gggctccggc agaggctcac cctctttctc cccaaggcca    300
tcctgccagg ttacatcgca tagtgccccg gctccgagat gtctttgggt gggggaacct    360
cacctgccca atctgcaaag gtctattcac cgccatcaac ctcgggctga agaaggaacc    420
caatgtggct cgcgtgggct ccgtggccat caagctgtgc aatctgctga agatagcacc    480
acctgccgtg tgccaatcca ttgtccacct ctttgaggat gacatggtgg aggtgtggag    540
acgctcagtg ctgagcccat ctgaggcctg tggcctgctc ctgggctcca cctgtgggca    600
ctgggacatt ttctcatctt ggaacatctc tttgcctact gtgccgaagc cgccccccaa    660
accccctagc cccccagccc caggtgcccc tgtcagccgc atcctcttcc tcactgacct    720
gcactgggat catgactacc tggagggcac ggaccctgac tgtgcagacc cactgtgctg    780
ccgccggggt tctggcctgc cgcccgcatc ccggccaggt gccggatact ggggcgaata    840
cagcaagtgt gacctgcccc tgaggaccct ggagagcctg ttgagtgggc tgggcccagc    900
cggccctttt gatatggtgt actggacagg agacatcccc gcacatgatg tctggcacca    960
gactcgtcag gaccaactgc gggccctgac caccgtcaca gcacttgtga ggaagttcct   1020
ggggccagtg ccagtgtacc ctgctgtggg taaccatgaa agcatacctg tcaatagctt   1080
ccctccccccc ttcattgagg gcaaccactc ctcccgctgg ctctatgaag cgatggccaa   1140
ggcttgggag ccctggctgc ctgccgaagc cctgcgcacc ctcagaattg ggggttcta   1200
tgctctttcc ccataccccg gtctccgcct catctctctc aatatgaatt tttgttcccg   1260
tgagaacttc tggctcttga tcaactccac ggatcccgca ggacagctcc agtggctggt   1320
gggggagctt caggctgctg aggatcgagg agacaaagtg catataattg gccacattcc   1380
cccagggcac tgtctgaaga gctggagctg gaattattac cgaattgtag ccaggtatga   1440
```
```

121
```

```
gaacaccctg gctgctcagt tctttggcca cactcatgtg gatgaatttg aggtcttcta    1500
tgatgaagag actctgagcc ggccgctggc tgtagccttc ctggcaccca gtgcaactac    1560
ctacatcggc cttaatcctg gttaccgtgt gtaccaaata gatggaaact actccaggag    1620
ctctcacgtg gtcctggacc atgagaccta catcctgaat ctgacccagg caaacatacc    1680
gggagccata ccgcactggc agcttctcta cagggctcga gaaacctatg gctgcccaa     1740
cacactgcct accgcctggc acaacctggt atatcgcatg cggggcgaca tgcaactttt    1800
ccagaccttc tggtttctct accataaggg ccacccaccc tcggagccct gtggcacgcc    1860
ctgccgtctg gctactcttt gtgcccagct ctctgcccgt gctgacagcc ctgctctgtg    1920
ccgccacctg atgccagatg ggagcctccc agaggcccag agcctgtggc caaggccact    1980
gttttgctag ggccccaggg cccacatttg ggaaagttct tgatgtagga aagggtgaaa    2040
aagcccaaat gctgctgtgg ttcaaccagg caagatcatc cggtgaaaga accagtccct    2100
gggccccaag gatgccgggg aaacaggacc ttctcctttc ctggagctgg tttagctgga    2160
tatgggaggg ggtttggctg cctgtgccca ggagctagac tgccttgagg ctgctgtcct    2220
ttcacagcca tggagtagag gcctaagttg acactgccct gggcagacaa gacaggagct    2280
gtcgccccag gcctgtgctg cccagccagg aaccctgtac tgctgctgcg acctgatgct    2340
gccagtctgt taaaataaag cccgcccgaa ttc                                 2373

<210>    254
<211>    2393
<212>    DNA
<213>    Homo sapiens

<400>    254
cggcgcggga cccgggtggg gaagctggag ctgttgcggg gtccgcgggg aagtcttggc     60
ggtggagcca tggtcggcca gctgagcgag ggggccattg cggccatcat gcagaagggg    120
gatacaaaca taaagcccat cctccaagtc atcaacatcc gtcccattac tacggggaat    180
agtccgccgc gttatcgact gctcatgagt gatggattga acactctatc ctctttcatg    240
ttggcgacac agttgaaccc tctcgtggag gaagaacaat tgtccagcaa ctgtgtatgc    300
cagattcaca gatttattgt gaacactctg aaagacggaa ggagagtagt tatcttgatg    360
gaattagaag ttttgaagtc agctgaagca gttggagtga agattggcaa tccagtgccc    420
tataatgaag gactcgggca gccgcaagta gctcctccag cgccagcagc cagcccagca    480
gcaagcagca ggccccagcc gcagaatgga agctcgggaa tgggttctac tgtttctaag    540
gcttatggtg cttcaaagac atttggaaaa gctgcaggtc ccagcctgtc acacacttct    600
gggggaacac agtccaaagt ggtgcccatt gccagcctca ctccttacca gtccaagtgg    660
accatttgtg ctcgtgttac caacaaaagt cagatccgta cctggagcaa ctcccgaggg    720
gaagggaagc ttttctccct agaactggtt gacgaaagtg gtgaaatccg agctacagct    780
ttcaatgagc aagtggacaa gttctttcct cttattgaag tgaacaaggt gtattatttc    840
tcgaaaggca ccctgaagat tgctaacaag cagttcacag ctgttaaaaa tgactacgag    900
atgaccttca ataacgagac ttccgtcatg ccctgtgagg acgaccatca tttacctacg    960
gttcagtttg atttcacggg gattgatgac ctcgagaaca agtcgaaaga ctcacttgta   1020
gacatcatcg ggatctgcaa gagctatgaa gacgccacta aaatcacagt gaggtctaac   1080
aacagagaag ttgccaagag gaatatctac ttgatggaca catccgggaa ggtggtgact   1140
gctacactgt ggggggaaga tgctgataaa tttgatggtt ctagacagcc cgtgttggct   1200
atcaaaggag cccgagtctc tgatttcggt ggacggagcc tctccgtgct gtcttcaagc   1260
actatcattg cgaatcctga catcccagag gcctataagc ttcgtggatg gtttgacgca   1320
gaaggacaag ccttagatgg tgtttccatc tctgatctaa agagcggcgg agtcggaggg   1380
agtaacacca actggaaaac cttgtatgag gtcaaatccg agaacctggg ccaaggcgac   1440
aagccggact actttagttc tgtggccaca gtggtgtatc ttcgcaaaga gaactgcatg   1500
taccaagcct gcccgactca ggactgcaat aagaaagtga ttgatcaaca gaatggattg   1560
```

122

```
taccgctgtg agaagtgcga caccgaattt cccaatttca agtaccgcat gatcctgtca   1620
gtaaatattg cagattttca agagaatcag tgggtgactt gtttccagga gtctgctgaa   1680
gctatccttg gacaaaatgc tgcttatctt ggggaattaa aagacaagaa tgaacaggca   1740
tttgaagaag ttttccagaa tgccaacttc cgatctttca tattcagagt cagggtcaaa   1800
gtggagacct acaacgacga gtctcgaatt aaggccactg tgatggacgt gaagcccgtg   1860
gactacagag agtatggccg aaggctggtc atgagcatca ggagaagtgc attgatgtga   1920
gaggagcagt gccaatcggg cagaagtttg caaataggca gaatggaatc gatttcctcc   1980
cacctccgtg tgacgatccc atgttagcta cacagtgcag aggctcttga tggtggacta   2040
agcaattcct ccctcgtgcg catctcagaa cccatcggta ggcaaaggaa aatacgctca   2100
ggtggttgtg gtgtagactg tgtcaggcct acggagtcag ccagtggcta gcgcaagacc   2160
agtcactccc tctgccttca ggcttctgtc aatttcatta tcatcaagca ggaattatgt   2220
cgtaagtcac tgaccctaac tgcagaccat gaagtaaatt atgtaactag gttttttgctt  2280
ctccagtggt gaccacccccc ccccatcccc gctcacaact tgggttcttc tcagcggggc  2340
gagctgagaa gcggtcatga gcacctgggg attttagtaa gtgtgtcttc cta          2393
```

<210> 255
<211> 2542
<212> DNA
<213> Homo sapiens

<400> 255
```
actccaggtg gtagtgctcg ctctggcgca gattagaggt ccaccgggag agcggggccc   60
cccgggtccc ccgggaccgc cgggagtgcc tggatccgac ggcatcgacg gtgacaatgg   120
gcccctgga aaagctggcc ctccgggacc caagggcgag cctggcaaag ctgggccaga   180
tgggccagac gggaagcccg ggattgatgg tttaactgga gccaaggggg agcctggccc   240
catggggatc cctggagtca agggccagcc cgggcttcct ggtcctcctg gccttccggg   300
ccctggtttt gctggacctc ctgggcctcc tggacctgtt ggcctccctg gtgagattgg   360
aatccgaggc cccaaggggg accctggacc agatggacca tcggggcccc caggacccccc   420
tgggaaacct ggtcgcccgg gaaccatcca gggtctggaa ggcagtgcgg atttcctgtg   480
tccaaccaac tgtccacccg gaatgaaagg tcccccaggg ctgcaggag tgaagggca   540
tgcgggcaaa cgcgggattc tgggtgatcc tggccaccag gggaagccgg gtcccaaggg   600
agatgtgggt gcctctggag agcaaggcat ccctggacca ccgggtcccc agggcatcag   660
gggctaccca ggcatggcag ggcccaaggg agagacgggc cctcatggat ataaaggcat   720
ggtgggcgct atcggtgcca ctgggccacc gggtgaggaa ggtcctaggg accgccagg   780
ccgagctggg gagaagggtg acgagggcag cccaggtatt cgtggacccc aggggatcac   840
aggcccgaaa ggagcaacgg gcccccccagg catcaacggc aaggatggga ccccaggcac   900
gcctggcatg aagggcagtg caggacaggc gggacagccc ggaagtccag gccaccaggg   960
cctagcgggt gtgccaggcc agcctggggac aaaaggaggc cctggagacc agggtgagcc  1020
gggcccgcag ggccttcctg gattctctgg tccccctggg aaagagggag agccaggggcc  1080
tcgaggagaa attggtcccc agggcatcat gggacagaag ggtgaccaag gcgagagggg  1140
tccagtgggg caaccaggcc ctcagggaag gcagggccct aaggggagc agggccccccc   1200
cggaattcca gggcccccaag gcttgccagg cgtcaaagga dacaagggct ccccagggaa   1260
```
```
gaccgggccc cgcggcaaag tgggtgaccc aggggtggcc ggcctccccg gagagaaagg  1320
cgagaagggc gagtccggcg agccgggggcc caagggacag caaggagtac gtggagaacc  1380
cggctaccct gggcccagcg gggatgcggg cgccccaggg gttcagggct accctggtcc   1440
ccccggccct cgaggactgg ccgggaaccg aggcgtgcca ggacagcccg ggagacaggg   1500
cgtggagggc cgggatgcca ctgaccagca catcgtggat gtggcgctga agatgctgca   1560
agagcaactg gcagaggtcg ccgtgagtgc caagcgggaa gccctggggtg cggtgggcat   1620
```

123

```
gatgggtcct ccaggacctc ctgggccccc tgggtaccca ggcaagcagg gcccccatgg    1680
gcaccctggc cctcggggcg ttcctggcat cgtgggagcc gtgggtcaga tcggcaacac    1740
ggggcccaag ggaaaacgtg gagagaaggg tgatccagga gaagtgggac gggggcaccc    1800
cgggatgcct gggcccccag ggatcccagg acttcctggc cggcctggcc aggcaatcaa    1860
cggcaaggat ggagatcgag ggtccccagg ggctccagga gaggcaggtc gacctggcct    1920
gccaggcccc gtggggctgc cgggcttctg tgaacctgcc gcctgccttg gagcttcggc    1980
ctatgcctct gcccgcctta cagagcctgg atccatcaag gggccttgag catcaggccc    2040
agacagagcc tggcaggcat cctggcggga aggaccaggt cccctctggt ggacatgcac    2100
ccatccccag tccaggaaac catctccccc aggaccttct gtctgggact caggagtcct    2160
aaggaaaagg aattctaaaa catgggggaa ggggaggtag agcactgatg ggtgaaaaag    2220
tgaggccaac acacagggca agtggtgtcg atggagtcga agcgctgaag gaatagggcg    2280
gctttccttc cagcgagcat cattcggctg ttaccaaaac aaacatctta atctgcacct    2340
tcctccactg gccatcttgt ccttgggtca gtgggacatg ggcacctcgg gaggcccggg    2400
ccctgcccag ctacagttcc acccctcagc ttgaggacca atactgaggt ctatgccagt    2460
tcctgatccc atctcactct ctggacctac taggtgactg ctgctggggt gactcccctg    2520
aggcggctat acccttaagc ca                                            2542

<210>   256
<211>   798
<212>   DNA
<213>   Homo sapiens

<400>   256
aaaattctga gctgtacacc tctaggaaat gaaacactag ttcagaagaa gcctgtaaac      60
tctcttacaa atacatttgg ttattcacca tgaggttagc aaagcctaaa gcgggtattt     120
ctcggagctc aagccaagga aaggcctatg agaacaagcg caaaacaggc cggcagcgcg     180
agaagtgggg catgactatt cgatttgact caagcttcag tagactcaga agaagcttgg     240
atgacaaacc ctataaatgt actgaatgtg aaaagagttt cagtcagagt tcaactcttt     300
ttcaacacca gaagatccat actggaaaga atcccataa atgtgctgat tgtgggaaaa     360
gtttctttca gagttctaat ctcattcagc atcgacggat ccatacgggg gaaaagccct     420
acaaatgtga tgagtgtgga gaaagcttca aacagagctc aaatctcatt cagcaccaga     480
gaattcatac tggagaaaaa ccctatcagt gtgatgagtg tggccggtgt ttcagccaga     540
gctcccacct tattcaacat cagagaaccc acactgggga gaaaccctac cagtgcagtg     600
aatgtggcaa atgtttcagt cagagctctc atctgaggca gcacatgaag gtgcataaag     660
aagagaagcc tcgtaaaacc cggggcaaaa atatcagggt gaagactcac ttaccctctt     720
ggaaagctgg tacagaagga agtctgtggc tggtctccgt taagtatagg gcttttgac     780
agcttttga gacctctt                                                  798

<210>   257
<211>   2685
<212>   DNA
<213>   Homo sapiens

<400>   257
cgaggagaga gagagagtaa ggagccagcc atgaatcctt tccagaaaaa tgagtccaag      60
gaaactcttt tttcacctgt ctccattgaa gaggtaccac ctcgaccacc tagccctcca     120
aagaagccat ctccgacaat ctgtggctcc aactatccac tgagcattgc cttcattgtg     180
gtgaatgaat ctgcgagcg cttttcctat tatggaatga aagctgtgct gatcctgtat     240
ttcctgtatt tcctgcactg gaatgaagat acctccacat ctatatacca tgccttcagc     300
agcctctgtt attttactcc catcctggga gcagccattg ctgactcgtg gttgggaaaa     360
```

124

```
ttcaagacaa tcatctatct ctccttggtg tatgtgcttg gccatgtgat caagtccttg      420
ggtgccttac caatactggg aggacaagtg gtacacacag tcctatcatt gatcggcctg      480
agtctaatag ctttggggac aggaggcatc aaaccctgtg tggcagcttt tggtggagac      540
cagtttgaag aaaaacatgc agaggaacgg actagatact tctcagtctt ctacctgtcc      600
atcaatgcag ggagcttgat ttctacattt atcacaccca tgctgagagg agatgtgcaa      660
tgttttggag aagactgcta tgcattggct tttggagttc caggactgct catggtaatt      720
gcacttgttg tgtttgcaat gggaagcaaa atatacaata aaccacccc tgaaggaaac       780
atagtggctc aagtttttcaa atgtatctgg tttgctattt ccaatcgttt caagaaccgt      840
tctggagaca ttccaaagcg acacgactgg ctagactggg cggctgagaa atatccaaag      900
cagctcatta tggatgtaaa ggcactgacc agggtactat tcctttatat cccattgccc      960
atgttctggg ctcttttgga tcagcagggt tcacgatgga ctttgcaagc catcaggatg     1020
aataggaatt tggggttttt tgtgcttcag ccggaccaga tgcaggttct aaatcccctt     1080
ctggttctta tcttcatccc gttgtttgac tttgtcattt atcgtctggt ctccaagtgt     1140
ggaattaact tctcatcact taggaaaatg gctgttggta tgatcctagc atgcctggca     1200
tttgcagttg cggcacgtgt agagataaaa ataaatgaaa tggccccagc ccagccaggt     1260
ccccaggagg ttttcctaca agtcttgaat ctggcagatg atgaggtgaa ggtgacagtg     1320
gtgggaaatg aaaacaattc tctgttgata gagtccatca aatcctttca gaaaacacca     1380
cactattcca aactgcacct gaaaacaaaa agccaggatt ttcacttcca cctgaaatat     1440
cacaatttgt ctctctacac tgagcattct gtgcaggaga agaactggta cagtcttgtc     1500
attcgtgaag atgggaacag tatctccagc atgatggtaa aggatacaga aagcagaaca     1560
accaatggga tgacaaccgt gaggtttgtt aacactttgc ataaagatgt caacatctcc     1620
ctgagtacag atacctctct caatgttggt gaagactatg gtgtgtctgc ttatagaact     1680
gtgcaaagag gagaataccc tgcagtgcac tgtagaacag aagataagaa cttttctctg     1740
aatttgggtc ttctagactt tggtgcagca tatctgtttg ttattactaa taacaccaat     1800
cagggtcttc aggcctggaa gattgaagac attccagcca acaaaatgtc cattcggtgg     1860
cagctaccac aatatgccct ggttacagct ggggaggtca tgttctctgt cacaggtctt     1920
gagttttctt attctcaggc tccctctagc atgaaatctg tgctccaggc agcttggcta     1980
ttgacaattg cagttgggaa tatcatcgtg cttgttgtgg cacagttcag tggcctggta     2040
cagtgggccg aattcatttt gttttcctgc ctcctgctgg tgatctgcct gatcttctcc     2100
atcatgggct actactatgt tcctgtaaag acagaggata tgcggggtcc agcagataag     2160
cacattcctc acatccaggg gaacatgatc aaactagaga ccaagaagac aaaactctga     2220
tgactcccta gattctgtcc taaccccaat tccctggccc tgtcttgaag catttttttt     2280
cttctactgg attagacaag agagatagca gcatatcaga gctgatctcc tccacctttc     2340
tccaatgaca gaagttccag gactggtttt ccagtacatc tttaaacaag gccccagaga     2400
ctctatgtct gcccgtccat cagtgaactc attaaaactt gtgcagtgtt gctggagctg     2460
gcctggtgtc tccaaatgac catgaaaata cacacgtata atggagatca ttctctgtgg     2520
gtatgcaaag ttatgggaat tcctttatag gtaactgcca tttaggactg atggccctaa     2580
tttttgaggt gctgatttag aggcaaaatt gcagaataac aaagaaatgg tatttcaagt     2640
ttttttttt ataagcaatg taattatgct attcacaggg gcccg                     2685
```

```
<210>   258
<211>   1972
<212>   DNA
<213>   Homo sapiens

<400>   258
gggtgtgatg gggcagagga acttacgtta tgatagtaca agacagaggt tgagcctcat      60
tttaataggc attgtggtgg gtgttgaata gtgatggaat gtatgggtct ggaatcaggc     120
```

125

```
tgcctggtca agggctctga aacatgagtg tgcatcagaa tcacctcgag gcttgttaaa      180
ggataggctg tggaccacat ctcctcagtt gctgattcag tgggtgtggg tggggcctga      240
gaattcacat ttctcactgg tgatgctgct gttactgagt ttgggaccac atttggagaa      300
ccactggtct agaattgaga ggttggcaaa ccttctctgt taagaggtag atagtaaata      360
ttttaggcct tctgggctac aaagagtatc tgttacatat tttttattgc ttttcatgac      420
ccattaagca tatatatatc attctctgcc atatacaaac aggctgttgg gggagtgagg      480
atgatgtagg gaaggtgggg catggtttaa taacccctgg gccatgccta gatgatcagt      540
cctctgccac atagctggct gacctttgcc aagttaatca ccttttacct ttattttctc      600
atgtttctaa taaaacagag acgataatat tcatacttct taccatatag aacttctgag      660
gattcagtga gcaaagccac aaaagatggt atgtcacaat atctgggata tagctagaat      720
ttataattta tttttactct gttgataggc aatgggaaaa cagtaagagg cagaccaaca      780
gtgatccagg gctctgaaag ctaattgctt caagatcctg ctaccatttt cttttgggcc      840
gcttgcaaag aagaatcctt tgactgaagc atgtatgtac actctgaagt acagcctggg      900
ttagtctctt ataagggatc ggatcattgc tcagcctctc ccttgagtgg cacttagaaa      960
atggcgctat tcgtaagctg actggtattg ggcccaggac tctggctgaa ggggtgggca     1020
tgctggtaac catttgcaac ctatgctcag gtcctacttg ttgggaagcc ctgattgaga     1080
agagtggcct ggtctgtgct ggcattagat aggatctggc tgcattaata ttgaaactac     1140
tctgcctttt atgtctcatt ttgcctcatg gtgggagtga aagtgagaac cacagaaaat     1200
ctgcctgcca ggtgttccac atttcttgtg ctacagcatg caagtgagca gtgaggtgtt     1260
accttttcct catgtagctg ggaaagcaat acccctgctt gtacctctgg catatcttct     1320
ctgtgctggt gcacctagag aggttgcctg gtggccctga gagaccatct catcactaaa     1380
cactgatggt gaaagctggc catgctcaaa taagatgtag caatctacct cttctttgtc     1440
tagttacccc caagggggca tccactttct tgctcacctc accagttgca ttgttctagt     1500
ccttgccaga agcacataat aatgactttg taagcttaag ttacaggcac acaaaagggc     1560
ctgatggtga tatgactcca ccctccccgt ttttgctgac attccgccaa atatccttct     1620
gtctcctccc caccttgcaa aacaaacttg ctgttttgaa tttggtccag gctggaacag     1680
ccccactaca cctgttaaca cacgcagacg cacacttccc ccttcataat tgcttagctt     1740
cttgttgcct agccagattt cccctcagct tacagttcct gaatcataag atattgaacc     1800
agcaaattta agagttgaca ttttacttag aggtattcaa gtgaaaacat ggcttctggt     1860
ttattttgct gtattgtgcc atgaccactt ggctaattct tctcctcctt cacagcagca     1920
gaatggaagt gaggaaaggc aaccagctga cacaggagcc agagtgagac ca             1972
```

<210> 259
<211> 1857
<212> DNA
<213> Homo sapiens

<400> 259
```
gccccggccc cgccccagcc ctcctgatcc ctcgcagccc ggctccggcc gcccgcctct       60
gccgccgcaa tgatgatgat ggcgctgagc aagaccttcg ggcagaagcc cgtgaagttc      120
cagctggagg acgacggcga gttctacatg atcggctccg aggtgggaaa ctacctccgt      180
atgttccgag gttctctgta caagagatac ccctcactct ggaggcgact agccactgtg      240
gaagagagga agaaaatagt tgcatcgtca catggtaaaa aaacaaaacc taacactaag      300
gatcacggat acacgactct agccaccagt gtgaccctgt aaaagcctc ggaagtggaa      360
gagattctgg atggcaacga tgagaagtac aaggctgtgt ccatcagcac agagccccc       420
acctacctca gggaacagaa ggccaagagg aacagccagt gggtacccac cctgtccaac      480
agctcccacc acttagatgc cgtgccatgc tccacaacca tcaacaggaa ccgcatgggc      540
cgagacaaga agagaacctt cccccttgc tttgatgacc atgacccagc tgtgatccat      600
gagaacgcat ctcagcccga ggtgctggtc cccatccggc tggacatgga gatcgatggg      660
```

126
```

```
cagaagctgc gagacgcctt cacctggaac atgaatgaga agttgatgac gcctgagatg      720
ttttcagaaa tcctctgtga cgatctggat ttgaacccgc tgacgtttgt gccagccatc      780
gcctctgcca tcagacagca gatcgagtcc taccccacgg acagcatcct ggaggaccag      840
tcagaccagc gcgtcatcat caagctgaac atccatgtgg gaaacatttc cctggtggac      900
cagtttgagt gggacatgtc agagaaggag aactcaccag agaagtttgc cctgaagctg      960
tgctcggagc tggggttggg cggggagttt gtcaccacca tcgcatacag catccgggga     1020
cagctgagct ggcatcagaa gacctacgcc ttcagcgaga accctctgcc cacagtggag     1080
attgccatcc ggaacacggg cgatgcggac cagtggtgcc cactgctgga gactctgaca     1140
gacgctgaga tggagaagaa gatccgcgac caggacagga acacgaggcg gatgaggcgt     1200
cttgccaaca cgggcccggc ctggtaacca gcccatcagc acacggctcc cacggagcat     1260
ctcagaagat tgggccgcct ctcctccatc ttctggcaag gacagaggcg agggacagc     1320
ccagcgccat cctgaggatc gggtgggggt ggagtggggg cttccaggtg gcccttcccg     1380
gtacacattc catttgttga gccccagtcc tgcccccac cccaccctcc ctaccctcc     1440
ccagtctctg gggtcaggaa gaaaccttat tttaggttgt gttttgtttt tgtataggag     1500
ccccaggcag ggctagtaac agttttaaa taaaaggcaa caggtcatgt tcaatttctt     1560
aaatctagtg tctttatttc ttctgttaca atagtgttgc ttgtgtaagc aggttagagt     1620
gcacagtgtc cccaattgtt cctggcactg caaaaccaaa ttaaacaatc ccacaaagaa     1680
ttctgacatc aatgtgtttt cctcagtcag gtctatttca agattctaga agttcctttt     1740
gtaaaacttg cctttaaaac tcttcctcct aatgccatca gatctcttaa cattggctca     1800
ctgtgggatc tttcctctta ggttgaattt ctacgtgaat atcaaagtgc ctttttc       1857
```

<210>   260
<211>   2553
<212>   DNA
<213>   Homo sapiens

<400>   260
```
ctaaaggcct tgcacaacat cagagagttc atactggaga gaaccttaca catttcacga       60
gtatggaaag acctttgctc aaaattcagc ccttgtaatg cataaggcaa ttcatactgg      120
aaagaaacct tacacatgta atgaatgtgg caaggttttt agtagaaaag cacaccttgc      180
atgtcatcat agacttcata ctgtctaagg tttctaatca acaatcaaac cttgcacaac      240
atcagagagt ttatactgga gagaaacctt acaagtgtaa tgagtggggc aaagccttaa      300
gtgggaagtc gtcacttttt tatcatcaag caatccatgg tgtagggaaa ctttgcaaat      360
gtaatgattg tcacaaagtc ttcagtaatg ctacaaccat tgcaaatcac tggagaatcc      420
ataatgaaga cagatcttac aagtgtaata aatgtggtaa aattttcaga catcgatcat      480
atcttgcagt ttatcagcga actcatactg gagagaaacc ttacaaatat catgactgtg      540
gcaaggtctt cagtcaagct tcatcctatg caaaacatag gagaattcat acaggagaga      600
aacctcacaa gtgtgatgat tgtggcaaag tcttgacttc acgttcacac ctcattagac      660
atcagagaat ccatactgga cagaaatctt acaaatgtct taagtgtggc aaggtcttca      720
gtctgtgggc actccatgca gaacatcaga aaattcattt ttgagataac tgttccaaat      780
acagtgacta tagaagatca taaagcttta attgacatta gagccaaata ggcattgact      840
tgagattgag ttgacttaac cttgagtttta agaattaatt tacattaaag tgtttatgtt      900
aagaagattg ggccaggtgg gattacaggc gcgagcaccg cgcccggccc ctaagttaat      960
atttcaaaca atcgaaggta aaacaacata ttgtgttggg ccacctgtac tgaacgctga     1020
atcgtttttc ctcttaagtt gaaaatggtt ttaatgcaaa gcgcctttt ttgagcaggt     1080
agagtcacgc atccggcagg cggggcgagc tcccctctgt ctggggcagg gtgggggaga     1140
ggggcaggga cctcggtaaa ggggtggagt ggcgcgctgg ttgccgcggg cactggcaat     1200
tagaagggat tattaaacta agcaaggtcc tgggttgttt gagtggataa tggaaactga     1260
```

127

```
aaggtgacgt gcaaaactgc ctattactcc caggagtgga ggataatttc atatttcatg    1320
gaaataaact cagggcccgg agcggtggct cacacctgta atcccagcac tttgagaggc    1380
caaggaggga ggatcgctta agcccaggaa ttcgaaatca gcctaggcaa catagtaaga    1440
cctcatctct actaaaaata aaaaaaaaca gccaggtgtg ttagtccaca cctgtggtcc    1500
cagctgcctc agcttcccga gtagctggga ttacaggtat gaaccactat gcccggctaa    1560
ctttgttttt tttttttaga aattaaacct tttttcagct taatgaccca ggggtgtatt    1620
tttgaaggac ttgggagctc tctttgaaag gcaaacaaca agggaaacag tacctttatc    1680
tcagtaggaa attaaataat tcaaacatca aataacttca atttaaggct atggactttg    1740
agataattct gagccttgag aggaatgtgg tcaggcaacc tgagtccagt ggaatgcagg    1800
tgcaacttct aagagttttc ctgtaagtaa ttaagaagac taagtagccc cagagataag    1860
acctcctcgg atcattgtcc cttcttatgt agtgataaag taaccttcct tgaagtgtat    1920
ctatccgtaa tcaatcaagt tgctgcagcc tatgcactgg cccagaataa aaaacgtggt    1980
gattctgcta aagcttctct gtctttccct gtgtgtgaaa tcttaacgtc tctacttggg    2040
aacgctgatc ccattcattt agagttgatg tttccacgtg gctatttcca agctttgcct    2100
tcaaataaat tctgtactta atcatatatt ctaaatttta ttatttactg ctgacatcag    2160
tttctgtcgg attgtaggag cctcaccaga gagggcccct gtcgccatgt tgtaaaactc    2220
acacttgcca aaagttgtgg gttagggttt ctccccctcc ctcaggatga cgctagttag    2280
ctgacacaga tggtcacctc cattaccaag tagagtcagg atgaactatg tgtgactgtt    2340
caactatgtg tcctcttccc tgaggactga ttagtgttta tcttgaaaac atgtccttaa    2400
tgggttgtat agaacactga agcatctgat ttcaaactct tagctctttt cctctatttc    2460
ccatcacatt ctggtctaag gcttatttat taataaaatg atttttattt ctttaaacaa    2520
aaaaaacttt agagcacact ggggtaccgg atc                                2553

<210>    261
<211>    2258
<212>    DNA
<213>    Homo sapiens

<400>    261
gatatcacag caacattgaa atgctaaaaa gttttttaaac actctcaatt tctaattcac      60
catgtcacag actggtgaaa aaaaaaaaaa aagcggccgc ttcccccccgg ccgggccccc     120
gccgccccgc ggtccccaga gcgccaggcc cccgggggga gggagggagg gcgccgggcc     180
ggtgggagcc agcggcgcgc ggtgggaccc acggagcccc gcgacccgcc gagcctggag     240
ccgggccggc tcggggaagc cggctccagc ccggagcgaa cttcgcagcc cgtcgggggg     300
cggcggggag ggggcccgga gccggaggag ggggcggccg cgggcacccc cgcctgtgcc     360
ccggcgtccc cgggcaccat gctgtccaac tcccagggcc agagcccgcc ggtgccgttc     420
cccgccccgg ccccgccgcc gcagcccccc acccctgccc tgccgcaccc ccggcgcag     480
ccgccgccgc cgccccgca gcagttcccg cagttccacg tcaagtccgg cctgcagatc     540
aagaagaacg ccatcatcga tgactacaag gtcaccagcc aggtcctggg gctgggcatc     600
aacggcaaag ttttgcagat cttcaacaag aggacccagg agaaattcgc cctcaaaatg     660
cttcaggact gccccaaggc ccgcagggag gtggagctgc actggcgggc ctcccagtgc     720
ccgcacatcg tacggatcgt ggatgtgtac gagaatctgt acgcagggag gaagtgcctg     780
ctgattgtca tggaatgttt ggacggtgga gaactcttta gccgaatcca ggatcgagga     840
gaccaggcat tcacagaaag agaagcatcc gaaatcatga gagcatcgg tgaggccatc     900
cagtatctgc attcaatcaa cattgcccat cgggatgtca agcctgagaa tctcttatac     960
acctccaaaa ggcccaacgc catcctgaaa ctcactgact ttggctttgc caaggaaacc    1020
accagccaca actctttgac cactccttgt tatacaccgt actatgtggc tccagaagtg    1080
ctgggtccag agaagtatga caagtcctgt gacatgtggt ccctgggtgt catcatgtac    1140
atcctgctgt gtgggtatcc ccccttctac tccaaccacg gccttgccat ctctccgggc    1200
```

128

```
atgaagactc gcatccgaat gggccagtat gaatttccca acccagaatg gtcagaagta    1260
tcagaggaag tgaagatgct cattcggaat ctgctgaaaa cagagcccac ccagagaatg    1320
accatcaccg agtttatgaa ccacccttgg atcatgcaat caacaaaggt ccctcaaacc    1380
ccactgcaca ccagccgggt cctgaaggag gacaaggagc ggtgggagga tgtcaagggg    1440
tgtcttcatg acaagaacag cgaccaggcc acttggctga ccaggttgtg agcagaggat    1500
tctgtgttcc tgtccaaact cagtgctgtt cttagaatcc cttttattcc ctgggtctct    1560
aatgggacct taaagaccat ctggtatcat cttctcattt tgcagaagag aaactgaggc    1620
ccagaggcgg agggcagtct gctcaaggtc acgcagctgg tgactggttg gggcagaccg    1680
gacccaggtt tcctgactcc tggcccaagt ctcttcctcc tatcctgcgg gatcactggg    1740
gggctctcag ggaacagcag cagtgccata gccaggctct ctgctgccca gcgctggggt    1800
gaggctgccg ttgtcagcgt ggaccactaa ccagcccgtc ttctctctct gctcccaccc    1860
ctgccgcctc acctgccctt gttgtctctg tctctcactg tctcttctgc tgtctctcta    1920
ctgtcttctg gctctctctg tacccttcct ggtgctgccg tgcccccagg aggagatgac    1980
cagtgccttg gccacaatgc gcgttgacta cgagcagatc aagataaaaa agattgaaga    2040
tgcatccaac cctctgctgc tgaagaggcg gaagaaagct cgggccctgg aggctgcggc    2100
tctggcccac tgagccaccg cgccctcctg cccacgggag gacaagcaat aactctctac    2160
aggaatatat tttttaaacg aagagacaga actgtccaca tctgcctcct ctcctcctca    2220
gctgcatgga gcctggaact gcatcagtga ctgaattc                           2258
```

<210> 262
<211> 1100
<212> DNA
<213> Homo sapiens

<400> 262
```
agtccccaac atggcggctc cccaagacgt ccacgtccgg atctgtaacc aagagattgt      60
caaatttgac ctggaggtga aggcgcttat tcaggatatc cgtgattgtt caggacccctt     120
aagtgctctt actgaactga atactaaagt aaaagagaaa tttcaacagt tgcgtcacag      180
aatacaggac ctggagcagt tggctaaaga gcaagacaaa gaatcagaga acaacttct      240
actccaggaa gtggagaatc acaaaaagca gatgctcagc aatcaggcct catggaggaa      300
agctaatctc acctgcaaaa ttgcaatcga caatctagag aaagcagaac ttcttcaggg      360
aggagatctc ttaaggcaaa ggaaaaccac caaagagagc ctggcccaga catccagtac      420
catcactgag agcctcatgg ggatcagcag gatgatggcc cagcaggtcc agcagagcga      480
ggaggccatg cagtctctag tcacttcttc acgaacgatc ctggatgcaa atgaagaatt      540
taagtccatg tcgggcacca tccagctggg ccggaagctt atcacaaaat acaatcgccg      600
ggagctgacg gacaagcttc tcatcttcct tgcgctacgc ctgtttcttg ctacggtcct      660
ctatattgtg aaaaagcggc tctttccatt tttgtgagat cccaaaggtg ccagttctgg      720
cccttcagc tcctgtttca ggatctgtcc tggttcctga gctctaggct gctaagctga      780
gccacacacc cctccgtttt gcaccagttg cctgcaggtt ggatggaaca cagtgcccca      840
cttttctgca agtagctggc ttgtaaaggg tgaacagagc catggaggaa ggtctggca      900
ttgggatgcc gccctgggga catacgaacc gcctccttcc accattgtgc actatgggag      960
gccgctgctg cgtggagcac ttaaagtcca gcctccagga ccggatgccc ctcctgtctc     1020
ccgctcccat cgtgcctta aatgccagat ctggtggagg gaagagagaa gaggtaggaa     1080
gaaaggtgat gaaaactcct                                               1100
```

<210> 263
<211> 4198
<212> DNA

129
```

<213> Homo sapiens

<400> 263
```
ctgctatcaa aaaggccata aggattttgt ccccaaattt cacatgagct accttgcttc   60
aaactactga gatgaagggg gcaagattat ttgtccttct ttctagttta tggagtgggg   120
gcattgggct taacaacagt aagcattctt ggactatacc tgaggatggg aactctcaga   180
agactatgcc ttctgcttca gttcctccaa ataaaataca aagtttgcaa atactgccaa   240
ccactcgggt catgtcggcg gagatagcta caactccaga ggcaagaact tctgaagaca   300
gtcttcttaa atcaacactg cctccctcag aaacaagtgc acctgctgag ggtgtgagaa   360
atcaaactct cacatccaca gagaaagcag aaggagtggt caagttacag aatcttaccc   420
tcccaaccaa cgctagcatc aagttcaatc ctggagcaga atcagtggtc ctttccaatt   480
ctacactgaa atttcttcag agctttgcca gaaagtcaaa tgaacaagca acttctctaa   540
acacagttgg aggcactgga ggcattggag gcgttggagg cactggaggc gtgggaaatc   600
gagccccacg ggaaacatac ctcagccggg gtgacagcag ttccagccaa agaactgact   660
accaaaaatc aaatttcgaa acaactagag gaaagaattg gtgtgcttat gtacatacca   720
ggttatctcc cacagtgaca ttggacaacc aggtcactta tgtcccaggt gggaaaggac   780
cttgtggctg gaccggtgga tcctgtcctc agagatctca gaagatatcc aatcctgtct   840
ataggatgca acataaaatt gtcacctcat tggattggag gtgctgtcct ggatacagtg   900
ggccgaaatg tcaactaaga gcccaggaac agcaaagttt gatacacacc aaccaggctg   960
aaagtcatac agctgttggc agaggagtag ctgagcagca gcagcagcaa ggctgtggtg   1020
acccagaagt gatgcaaaaa atgactgatc aggtgaacta ccaggcaatg aaactgactc   1080
ttctgcagaa gaagattgac aatatttctt tgactgtgaa tgatgtaagg aacacttact   1140
cctccctaga aggaaaagtc agcgaagata aaagcagaga atttcaatct cttctaaaag   1200
gtctaaaatc caaaagcatt aatgtactga taagagacat agtaagagaa caatttaaaa   1260
tttttcaaaa tgacatgcaa gagactgtag cacagctctt caagactgta tcaagtctat   1320
cagaggacct cgaaagcacc aggcaaataa ttcaaaaagt taatgaatct gtggtttcaa   1380
tagcagccca gcaaaagttt gttttggtgc aagagaatcg gcccactttg actgatatag   1440
tggaactaag gaatcacatt gtgaatgtaa ggcaagaaat gactcttaca tgtgagaagc   1500
ctattaaaga actagaagta aagcagactc atttagaagg tgctctagaa caggaacact   1560
caagaagcat tctgtattat gaatccctca ataaaactct ttctaaattg aaggaagtac   1620
atgagcagct tttatcaact gaacaggtat cagaccagaa gaatgctcca gctgctgagt   1680
cagttagcaa taatgtcact gagtacatgt ctactttaca tgaaaatata aagaagcaga   1740
gtttgatgat gctgcaaatg tttgaagatt tgcacattca agaaagcaag attaacaatc   1800
tcaccgtctc tttggagatg gagaaagagt ctctcagagg tgaatgtgaa gacatgttat   1860
ccaaatgcag aaatgatttt aaatttcaac ttaaggacac agaagagaat ttacatgtgt   1920
taaatcaaac attggctgaa gttctctttc caatggacaa taagatggac aaaaatgagtg   1980
agcaactaaa tgatttgact tatgatatgg agatccttca acccttgctt gagcagggag   2040
catcactcag acagacaatg acatatgaac aaccaaggga agcaatagtg ataaggaaaa   2100
agatagaaaa tctgactagt gctgtcaata gtctaaattt tattatcaaa gaacttacaa   2160
aaagacacaa cttacttaga aatgaagtac agggtcgtga tgatgcctta gaaagacgta   2220
tcaatgaata tgccttagaa atggaagatg gcctcaataa gacaatgact attataaata   2280
atgctattga tttcattcaa gataactatg ccctaaaaga gactttaagt actattaagg   2340
ataatagtga gatccatcat aaatgtacct ccgatatgga aactattttg acatttattc   2400
ctcagttcca ccgtctgaat gattctattc agactttggt caatgacaat cagagagatagat   2460
acttttgtttt gcaagtcgcc aagacccttg caggtattcc cagagatgag aaactaaatc   2520
agtccaactt ccaaaagatg tatcaaatgt tcaatgaaac cacttcccaa gtgagaaaat   2580
accagcaaaa tatgagtcat ttggaagaaa aactactctt aactaccaag atttccaaaa   2640
attttgagac tcggttgcaa gacattgagt ctaaagttac ccagacgctc ataccttatt   2700
```

130

```
atatttcagt taaaaaaggc agtgtagtta caaatgagag agatcaggct cttcaactgc   2760
aagtattaaa ttccagattt aaggcgttgg aagcaaaatc tatccatctt tcaattaact   2820
tcttttcgct taacaaaact ctccacgaag ttttaacaat gtgtcacaat gcttctacaa   2880
gtgtgtcaga actgaatgct accatcccta agtggataaa acattccctg ccagatattc   2940
aacttcttca gaaaggtcta acagaatttg tggaaccaat aattcaaata aaaactcaag   3000
ctgccctatc taattcaact tgttgtatag atcgatcgtt gcctggtagt ctggcaaatg   3060
ttgtcaagtc tcagaagcaa gtaaaatcat tgccaaagaa aattaacgca cttaagaaac   3120
caacggtaaa tcttaccaca gtcctgatag gccggactca aagaaacacg gacaacataa   3180
tatatcctga ggagtattca agctgtagtc ggcatccgtg ccaaaatggg ggcacgtgca   3240
taaatggaag aactagcttt acctgtgcct gcagacatcc ttttactggt gacaactgca   3300
ctatcaagct tgtggaagaa aatgctttag ctccagattt ttccaaagga tcttacagat   3360
atgcacccat ggtggcattt tttgcatctc atacgtatgg aatgactata cctggtccta   3420
tcctgtttaa taacttggat gtcaattatg gagcttcata taccccaaga actggaaaat   3480
ttagaattcc gtatcttgga gtatatgttt tcaagtacac catcgagtca tttagtgctc   3540
atatttctgg atttttagtg gttgatggaa tagacaagct tgcatttgag tctgaaaata   3600
ttaacagtga aatacactgt gataggggtt taactgggga tgccttatta gaattaaatt   3660
atgggcagga agtctggtta cgacttgcaa aaggaacaat tccagccaag tttccccctg   3720
ttactacatt tagtggctat ttattatatc gtacataagt tagtatgaaa aacagactat   3780
cacctttatt gagaaacagc cagtgttttc atttatcttt gcttgcacat ctgctctgtt   3840
ttggtttttc tacaggaaat gaaaatcaac ttgttttttt aatatgagta aacttgtatg   3900
tctattttat aaaattattt gaatattgtt taatgtctga atatgaaaga gttcttgatc   3960
ctaaagaaat ttagtggcac agaaaacaaa gtgaatttgt tagcataatt attcctattc   4020
ttatttcttc attttaagtc attgcaatgg aaagtaatat tataaaacgg taattacaac   4080
atattatcag tcacagtttt ctttccaatt aaacacttaa cttttgttat tccctgtata   4140
taaatatata acacacattt tctagattca caaatttaaa taaattactc aaaaaaatg   4198
```

<210> 264
<211> 2002
<212> DNA
<213> Homo sapiens

<400> 264
```
tataacgtga gggctgaatg cagcccattc tctggagaac ttcctcacac accgcagcaa     60
agagaagact gaaagacaaa cctgggtgca gccagagagg tccagataga tgagcttgtg    120
gcatccattc cccaagttca gcctagggac tccacgtacc ccagctgggt ctcattgttc    180
cagaactgca ttagttaaga ttacccagac ttggatttca aaggaatact ttcattgttc    240
cgtctgtaac acgaagtaat tggggccagc tggatgtcag gatgcgtgtg gttaccattg    300
taatcttgct ctgcttttgc aaagcggctg agctgcgcaa agcaagccca ggcagtgtga    360
gaagccgagt gaatcatggc cgggcgggtg gaggccggag aggctccaac ccggtcaaac    420
gctacgcacc aggcctcccg tgtgacgtgt acacatatct ccatgagaaa tacttagatt    480
gtcaagaaag aaaattagtt tatgtgctgc ctggttggcc tcaggatttg ctgcacatgc    540
tgctagcaag aaacaagatc cgcacattga agaacaacat gttttccaag tttaaaaagc    600
tgaaaagcct ggatctgcag cagaatgaga tctctaaaat tgagagtgag gcgttctttg    660
gtttaaacaa actcaccacc ctcttactgc agcacaacca gatcaaagtc ttgacggagg    720
aagtgttcat ttacacacct ctcttgagct acctgcgtct ttatgacaac ccctggcact    780
gtacttgtga gatagaaacg cttatttcaa tgttgcagat tcccaggaac cggaatttgg    840
cgaactacgc caagtgtgaa agtccacaag aacaaaaaaa taaaaaactg cggcagataa    900
aatctgaaca gttgtgtaat gaagaagaaa aggaacaatt ggacccgaaa ccccaagtgt    960
cagggagacc cccagtcatc aagcctgagg tggactcaac tttttgccac aattatgtgt   1020
```
```

                              131
```

```
ttcccataca aacactggac tgcaaaagga aagagttgaa aaaagtgcca aacaacatcc    1080
ctccagatat tgttaaactt gacttgtcat acaataaaat caaccaactt cgacccaagg    1140
aatttgaaga tgttcatgag ctgaagaaat taaacctcag cagcaatggc attgaattca    1200
tcgatcctgg gtctttgaga tgaaaccctg caagtagact tacgtgaatg atttttgctg    1260
tgccgctttt ttagggctca cacatttaga agaattagat ttatcaaaca acagtctgca    1320
aaactttgac tatggcgtat tagaagactt gtatttttg aaactcttgt ggctcagaga    1380
taaccctgg agatgtgact acaacattca ctacctctac tactggttaa agcaccacta    1440
caatgtccat tttaatggcc tggaatgcaa aacgcctgaa gaatacaaag gatggtctgt    1500
gggaaaatat attagaagtt actatgaaga atgccccaaa gacaagttac cagcatatcc    1560
tgagtcattt gaccaagaca cagaagatga tgaatgggaa aaaaacata gagatcacac    1620
cgcaaagaag caaagcgtaa taattactat agtaggataa ggtagaaatt gttctgattg    1680
taattagttt tgtattttct atactggtgt tagaaaacat atgtttacat ttgattaact    1740
gtgttgccta tttatgcagg gtaatccagc taaaggaagc tttctttaat tataagtatt    1800
attgtgacta ttatagtaat caagagaatg ctatcatcct gcttgcctgt ccatttgtgg    1860
aacagcatct ggtgatatgc aattccacac tggtaacctg cagcagttgg gtcctaatga    1920
tggcattaga ctttcataat gtcctgtata aatgttttta ctgctttag aaaataaaga    1980
aaaaaaactt ggttcatgtt ta                                             2002
```

<210>   265
<211>   1358
<212>   DNA
<213>   Homo sapiens

<400>   265
```
cctgccctgg aagcggatcg aagtgatggc cctgcccaaa ccgggcgggg cccacagcct      60
agccctggtg acagtgccca gcatgggcta tgctcctgtt cctcccccca cctcactgca     120
gccctgctg ccccagcagc ctgtgttcgt agtgcaagag actgatggct ccgtgactct     180
ggacaatggc atcatccgag tgaagctgga cccaactggt cgcctgacgt ccttggtcct     240
ggtggcctct ggcagggagg ccattgctga gggcgccgtg gggaaccagt ttgtgctatt     300
tgatgatgtc cccttgtact gggatgcatg ggacgtcatg gactaccacc tggagacacg     360
gaagcctgtg ctgggccagg cagggaccct ggcagtgggc accgagggcg gcctgcgggg     420
cagcgcctgg ttcttgctac agatcagccc caacagtcgg cttagccagg aggttgtgct     480
ggacgttggc tgccccctatg tccgcttcca caccgaggta cactggcatg aggcccacaa     540
gttcctgaag gtggagttcc ctgctcgcgt gcggagttcc caggccacct atgagatcca     600
gtttgggcac ctgcagcgac ctacccacta caatacctct tgggactggg ctcgatttga     660
ggtgtgggcc catcgctgga tggatctgtc agaacacggc tttgggctgg ccctgctcaa     720
cgactgcaag tatggcgcgt cagtgcgagg cagcatcctc agcctctcgc tcttgcgggc     780
gcctaaagcc ccggacgcta ctgctgacac ggggcgccac gagttcacct atgcactgat     840
gccgcacaag ggctctttcc aggatgctgg cgttatccaa gctgcctaca gctaaactt     900
cccctgttg gctctgccag cccccagccc agcgcccgcc acctcctgga gtgcgttttc     960
cgtgtcttca cccgcggtcg tattggagac cgtcaagcag gcggagagca gcccccagcg    1020
ccgctcgctg gtcctgaggc tgtatgaggc ccacggcagc cacgtggact gctggctgca    1080
cttgtcgctg ccggttcagg aggccatcct ctgcgatctc ttggagcgac cagaccctgc    1140
tggccacttg acttcgggac aaccgcctga agctcacctt ttctcccttc caagtgctgt    1200
ccctgttgct cgtgcttcag cctccgccac actgagtccc tggggctggg gtttttgttg    1260
tagaaggctc tggggactcc taatttctgc ttccccagcc taaagcaggg atcagtcttt    1320
tcttgtggaa taaatccttg gatcgggaaa aaaaaaaa                            1358
```
```

132

```
<210>  266
<211>  6568
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  266
gaaggcgagc acccagacgg gggcccgccg gggtcgcggc cagcgccggg gaaatgccgc      60
gccggggagc agcatgcgcc ggcctgagcc cttccctttg cactcggctg ttttttacgt     120
ttaaccagaa aggaagggag aggagggaaa gatccatgtg gctgccctct tccgatcaca     180
aatattgtcg ggaaggctac tggccggaaa gcgccgctgt ggctgagagc gaagtttcag     240
agactcttat ttaaactggg ttgttacatt caaaaaaact gcggcaagtt cttggttgtg     300
ggcctcctca tatttggggc cttcgcggtg ggattaaaag cagcgaacct cgagaccaac     360
gtggaggagc tgtgggtgga agttggagga cgagtaagtc gtgaattaaa ttatactcgc     420
cagaagattg gagaagaggc tatgtttaat cctcaactca tgatacagac ccctaaagaa     480
gaaggtgcta atgtcctgac cacagaagcg ctcctacaac acctggactc ggcactccag     540
gccagccgtg tccatgtata catgtacaac aggcagtgga aattggaaca tttgtgttac     600
aaatcaggag agcttatcac agaaacaggt tacatggatc agataataga atatctttac     660
ccttgtttga ttattacacc tttggactgc ttctgggaag gggcgaaatt acagtctggg     720
acagcatacc tcctaggtaa acctcctttg cggtggacaa acttcgaccc tttggaattc     780
ctggaagagt taaagaaaat aaactatcaa gtggacagct gggaggaaat gctgaataag     840
gctgaggttg gtcatggtta catggaccgc ccctgcctca atccggccga tccagactgc     900
cccgccacag cccccaacaa aaattcaacc aaacctcttg atatggccct tgttttgaat     960
ggtggatgtc atggcttatc cagaaagtat atgcactggc aggaggagtt gattgtgggt    1020
ggcacagtca agaacagcac tggaaaactc gtcagcgccc atgccctgca gaccatgttc    1080
cagttaatga ctcccaagca aatgtacgag cacttcaagg ggtacgagta tgtctcacac    1140
atcaactgga acgaggacaa agcggcagcc atcctggagg cctggcagag gacatatgtg    1200
gaggtggttc atcagagtgt cgcacagaac tccactcaaa aggtgctttc cttcaccacc    1260
acgaccctgg acgacatcct gaaatccttc tctgacgtca gtgtcatccg cgtggccagc    1320
ggctacttac tcatgctcgc ctatgcctgt ctaaccatgc tgcgctggga ctgctccaag    1380
tcccagggtg ccgtgggggct ggctggcgtc ctgctggttg cactgtcagt ggctgcagga    1440
ctgggcctgt gctcattgat cggaatttcc tttaacgctg caacaactca ggttttgcca    1500
tttctcgctc ttggtgttgg tgtggatgat gttttcttc tggcccacgc cttcagtgaa     1560
acaggacaga ataaaagaat cccttttgag gacaggaccg gggagtgcct gaagcgcaca    1620
ggagccagcg tggccctcac gtccatcagc aatgtcacag ccttcttcat ggccgcgtta    1680
atcccaattc ccgctctgcg ggcgttctcc ctccaggcag cggtagtagt ggtgttcaat    1740
tttgccatgg ttctgctcat ttttcctgca attctcagca tggatttata tcgacgcgag    1800
gacaggagac tggatatttt ctgctgtttt acaagcccct gcgtcagcag agtgattcag    1860
gttgaacctc aggcctacac cgacacacac gacaataccc gctacagccc cccacctccc    1920
tacagcagcc acagctttgc ccatgaaacg cagattacca tgcagtccac tgtccagctc    1980
cgcacggagt acgacccccca cacgcacgtg tactacacca ccgctgagcc gcgctccgag    2040
atctctgtgc agcccgtcac cgtgacacag gacaccctca gctgccagag cccagagagc    2100
accagctcca caagggacct gctctcccag ttctccgact ccagcctcca ctgcctcgag    2160
cccccctgta cgaagtggac actctcatct tttgctgaga agcactatgc tcctttcctc    2220
ttgaaaccaa aagccaaggt agtggtgatc ttccttttc tgggcttgct gggggtcagc    2280
```

133

```
ctttatggca ccacccgagt gagagacggg ctggacctta cggacattgt acctcgggaa    2340
accagagaat atgactttat tgctgcacaa ttcaaatact tttctttcta caacatgtat    2400
atagtcaccc agaaagcaga ctacccgaat atccagcact tactttacga cctacacagg    2460
agtttcagta acgtgaagta tgtcatgttg gaagaaaaca aacagcttcc caaaatgtgg    2520
ctgcactact tcagagactg gcttcaggga cttcaggatg catttgacag tgactgggaa    2580
accgggaaaa tcatgccaaa caattacaag aatggatcag acgatggagt ccttgcctac    2640
aaactcctgg tgcaaaccgg cagccgcgat aagcccatcg acatcagcca gttgactaaa    2700
cagcgtctgg tggatgcaga tggcatcatt aatcccagcg ctttctacat ctacctgacg    2760
gcttgggtca gcaacgaccc cgtcgcgtat gctgcctccc aggccaacat ccggccacac    2820
cgaccagaat gggtccacga caaagccgac tacatgcctg aaacaaggct gagaatcccg    2880
gcagcagagc ccatcgagta tgcccagttc cctttctacc tcaacggctt gcgggacacc    2940
tcagactttg tggaggcaat tgaaaaagta aggaccatct gcagcaacta tacgagcctg    3000
gggctgtcca gttaccccaa cggctacccc ttcctcttct gggagcagta catcggcctc    3060
cgccactggc tgctgctgtt catcagcgtg gtgttggcct gcacattcct cgtgtgcgct    3120
gtcttccttc tgaacccctg gacggccggg atcattgtga tggtcctggc gctgatgacg    3180
gtcgagctgt tcggcatgat gggcctcatc ggaatcaagc tcagtgccgt gcccgtggtc    3240
atcctgatcg cttctgttgg cataggagtg gagttcaccg ttcacgttgc tttggccttt    3300
ctgacggcca tcagcgacaa gaaccgcagg gctgtgcttg ccctggagca catgtttgca    3360
cccgtcctgg atggcgccgt gtccactctg ctgggagtgc tgatgctggc gggatctgac    3420
ttcgacttca ttgtcaggta tttctttgct gtgctggcaa tcctcaccat cctcggcgtt    3480
ctcaatgggc tggttttgct tcccgtgctt tggtctttct ttggaccata tcctgaggtg    3540
tctccagcca acggcttgaa ccgcctgccc acaccctccc ctgagccacc ccccagcgtg    3600
gtccgcttcg ccatgccgcc cggccacacg cacagcgggt ctgattcctc cgactcggag    3660
tatagttccc agacgacagt gtcaggcctc agcgaggagc ttcggcacta cgaggcccag    3720
cagggcgcgg gaggccctgc ccaccaagtg atcgtggaag ccacagaaaa ccccgtcttc    3780
gcccactcca ctgtggtcca tcccgaatcc aggcatcacc caccctcgaa cccgaaacag    3840
cagccccacc tggactcagg gtccctgcct cccggacggc aaggccagca gccccgcagg    3900
gacccccca gaaaaggctt gtggccaccc ctctacagac cgcgcagaga cgcttttgaa    3960
atttctactg aagggcattc tggccctagc aatagggccc gctggggccc tcgcggggcc    4020
cgttctcaca accctcggaa cccaacgtcc actgccatgg gcagctccgt gcccggctac    4080
tgccagccca tcaccactgt gacggcttct gcctccgtga ctgtcgccgt gcacccgccg    4140
cctgtccctg ggcctgggcg gaacccccga gggggactct gcccaggcta ccctgagact    4200
gaccacggcc tgtttgagga cccccacgtg cctttccacg tccggtgtga gaggagggat    4260
tcgaaggtgg aagtcattga gctgcaggac gtggaatgcg aggagaggcc ccggggaagc    4320
agctccaact gagggtgatt aaaatctgaa gcaaagaggc caaagattgg aaacccccca    4380
ccccacctc tttccagaac tgcttgaaga gaactggttg gagttatgga aaagatgccc    4440
tgtgccagga cagcagttca ttgttactgt aaccgattgt attattttgt taaatatttc    4500
tataaatatt taagagatgt acacatgtgt aatataggaa ggaaggatgt aaagtggtat    4560
gatctgggcc ttctccactc ctgccccaga gtgtggaggc cacagtgggg cctctccgta    4620
tttgtgcatt gggctccgtg ccacaaccaa gcttcattag tcttaaattt cagcatatgt    4680
tgctgctgct taaatattgt ataatttact tgtataattc tatgcaaata ttgcttatgt    4740
aataggatta ttttgtaaag gtttctgttt aaaatatttt aaatttgcat atcacaaccc    4800
tgtggtagta tgaaatgtta ctgttaactt tcaaacacgc tatgcgtgat aattttttttg    4860
tttaatgagc agatatgaag aaagcacgtt aatcctggtg cttctctag gtgtcgttgt    4920
gtgcggtcct cttgtttggc tgtgcgtgtg aacacgtgtg tgagttcacc atgtactgta    4980
ctgtgatttt tttttttgtc ttgttttgtt tctctacact gtctgtaacc tgtagtaggc    5040
tctgacctat tcaggctgga aagcgtcagg atatcttttc ttcgtgctgg tgagggctgg    5100
ccctaaacat ccacctaatc ctttcaaatc agcccggcaa aagctaaact ctcctcgtgt    5160
```

134

```
ctacgggcat ctgttatgat cattggctgc catccaggac cccaatttgt gcttcagggg      5220
gataatctcc ttctctcgga tcattgtgat ggatgctgga acctcagggt atggagctca      5280
catcagttca tcatggtggg tgttagagaa ttcggtgaca tgcctagtgc tgagccttgg      5340
ctgggccatg agagtctgta taataaaaaa agcatgcagc atggtgcccc tcttttgacc      5400
aacacacaca agacccctcc cccaacaccc ccaaattcaa gagtggatgt ggccctgtca      5460
caggtagaaa aacctattta gttaattctt tcttggccca cagtctccca gaaatgatgt      5520
tttgagtccc tatagtttaa agtccctctc ttaaatggag cagctggttt gaggtttcta      5580
aatctgtttg cattttcttt aaaattaagt ggtgagcatg cattgtggtg tagaggcagg      5640
cattatgtag gataagagct ccggggggat tcttcatgca ccagtgttta gggtacgtgc      5700
ttcctaagta aatccaaaca ttgtctccat cctccccgtc attagtgctc tttcaatgtg      5760
atgtgggaaa gcaggaggat ggacacaccc cactgaaaga tgtaggcagg ggcaggtctc      5820
tcaaccaggc atattttaa aagttgcttc tgtactggtt ctcttctttt gctctgaggt      5880
gtgggctccc tcatctcgta accagagacc agcacatgtc agggaagcac ccagtgtcgg      5940
ctccccatcc caatccacac cagcaccttg ttacagacaa gaagtcagag gaaagggcgg      6000
ggtccctgca gggctgaagc ctaagctact gtgaggtgct cacaagtggc agctcctgta      6060
atccctttta aattacgtgg gaatcttaac agaaagtaat gggcccccag aaatacccac      6120
agcataggac ntcagaccct gaactcacca caaaattta agatgctgat tgggagccgc      6180
ttgtggctgc tggatgngtg tgtgtgtgtg tgtgtgtgcg tgcgtgcgtg tgtgtgtgtg      6240
tctgntgggg accctggcca ccccccctgct gctgtcttgg tgcctgtcac ccacatggtc      6300
tgccatccta acacccagct ctgctcagaa aacgtcctgc gtggaggagg gatgatgcag      6360
aattctgaag tcgacttccc tctggctcct ggcgtgccct cgctcccttc ctgagcccag      6420
ctcgtgttgc gccggaggct gcgcggcccc tgatttctgc atggtgtaga actttctcca      6480
atagtcacat tggcaaaggg agaactgggg tgggcggggg gtggggctgg cagggaatta      6540
gcatttctct ctctctttta atagttaa                                        6568
```

<210> 267
<211> 4465
<212> DNA
<213> Homo sapiens

<400> 267
```
gagctcacag agcccccagc tggggcatat ctggtttccg ggggcagggg cgatacccag       60
aggaggaaga agggattctg agagagccca acaggctccg agcctcaggc tggagctgag      120
cttggggcag caaggaagga ccaggtgcga gggcagaacc atgcggcccg accccctgcag     180
cacggcctgt ggcctccccc agctcctgcc cgtgcttctg ggtcagtctg gactttgcca      240
cttctgacca aaagccaccg caaacccact caagccaaaa gaggaagtga ccgttaggcc      300
caactgggaa ggctggcggc caggggcact ccaggcaggg cgaggggggc ggccgggggc      360
gctccaggcg gggcgaggga gacacccaga actccaggca ggagtcctcg ggtgccacct      420
ttcctctcca cctggccctg cgtgggctct gtcctcaggg tggcccgccg tagtccccct      480
ccccactctg agtttcctgt cccaaagtcc taaggaagtt tccagaacta catctcacca      540
tcttgagtca gccttggctc agtgtccatc tcacaggcct ggaaggggca ggagtcagca      600
ctgtccagac cacagggcct gagtgtgggg agggcagccg tctaggaagg tggtggaggg      660
ttgttacctt gaggcaagag ggctgcgggg cagaaagaca cagcaggtga ctgttgtggg      720
aggcccaaga gaggcctggg agagggatgg cccacaaggg ctgaccctcc cgccacccag      780
ggggccttgg acaggtttcc tcctggcagg gtggcccttg tgcatggaac ccctacaacg      840
actaaggctg gcaggcatga ggtttcctga aggagaaaga gcttgtgggg cccagtgtgg      900
ctggggggggc gctgggactc cattctgaag ccaaaggcac tgggaagggc ttccgcagag     960
gagggtttgg caggggttgc caggaacagc ctggatgggg acagggaaca gataaggtgg     1020
```

135
```

```
gtggaggagt tagccgggag cctggggctg gctccagcat gatgtggggg tctgcaaggc   1080
cctggagaaa gtggggtggt gcagcagggg gcacacccac agctggagct gacccagatg   1140
gacagcttgg gctctgccac gcgggactag gcaaggaagg ggcacgaaca agcaggaagt   1200
ggtgaggcgg tctccagcta gctgctctcc cctgcccaga ctttggtttc ctccctgctg   1260
gcttggcctg gctccctggc tctgtgtggt atggtcacac ccccgtgcac cccctccact   1320
gagatggggc ggggagagca ccgaggctgc tcttcctctc ctgggccgtc ctctgagcag   1380
cagacggggc taagcgttcc ccagctcgcc ttcacacaca gcccgtgcca ccacaccgac   1440
ggtaccatga aggacgaggt agctctactg gctgctgtca ccctcctggg agtcctgctg   1500
caaggtgggc tggttcctat ctaggaagag ggtgggcctt agatccctac agcttgccct   1560
ctgcccccta ggcccaggtg gagggcagag gtggggactc cagcccaggc ccaagctgga   1620
agagggtggg gactttcagg gaactggggg gcacctggct gtgagagctg taggacttgg   1680
gggtggcaag ggtgccagga caaatggtag gatagccatg ggcttgggga agctgatctc   1740
tgctctttcc agctgtcccc tctctgggcg tcccagcaag cggcccccat tccctggctc   1800
tgcttcaaag gcacctccat actgggacca cgtggagcag ggtagaggtg ggactccttc   1860
ctccagcccc ctaaaaagag cctgcttaat gcctttctca gactggccct aaaggacaca   1920
ttccttggcc agatatcctt gccacctaag agacaccact actccacagt gtgtgggcta   1980
ggataaggca cagcctgggg aggggctct gaagggctg aacagacagg ccagcctgac   2040
ctccagctgc tcctgcactg agctggatgg ccaccctgtg acacccatct gcagagggcc   2100
cagaaccaaa ggtgccaggg ctgcaggact caggggagga tggtccgacg ggaggtctgg   2160
ggagggagcg cacagccagc actggtctgt gtgtggtctg gcctggcctc acctgaccaa   2220
gagaagggct cctgcccaca gagaaacttt agggccagcc caccctctgc aactacccca   2280
gccctggggt cctggggtta ggctaggaga gtcccagctg caacctcctg ggagcaggag   2340
agaaggtgtc tgtcagattt aggcctggga ccggaatgca ggaacagaga aactgaggtt   2400
tggaggcaca gggacgcagg ctttagtgat cccggcctga ggcagggtca gagggccctg   2460
ctggtgggcg ctggtaggtg ggtgaccagg gactgttagc tacagggagt gtgcttcctt   2520
gcacctggga ggatgcagcc agctctgccc tcagactccc gaggcacttc ctggccaggg   2580
acctgaaagc tgcatttgcc tgtgttttga gagtgaaatg attcagaaac aaggactcaa   2640
gtggtctctc tcgcggagca ggtgtccctg tgcctgaatc actcaccctc ccccatacac   2700
tcacaggttg ggacagggcc tctctgcgcc ccaggcttca gccctgccct cctcgctgaa   2760
tgtcagggac acagggcagg ccagggatgg gtgagacgag aggtctcctc gggcggggag   2820
ggggcggggt tccgccttag ggaggagagg acacggccaa gtgaagggcc agattgcagg   2880
atccctccca ctcccatctc tggggcttcg ggtgtccaga cctgactccc gctcccctc   2940
ctcccccagc ctacttctcc ctgcaggtga tctcggcgcg cagggccttc cgcgtgtcgc   3000
cgccgctcac caccggccca cccgagttcg agcgcgtcta ccgagcccag tgaggcgcgg   3060
cgggagggcg cggggcgggg agcgagcccc aggcgggtcc gggtcgcagg accatcccgg   3120
ccggcgcgct catcccaccc gcccaccgca gggtgaactg cagcgagtac ttcccgctgt   3180
tcctcgccac gctctgggtc gccggcatct tctttcatga aggtcggggt gtggggcagg   3240
ggcgcacgcg ctggaccccc gggacccgcg cagggcgctc accaggcccg tgcgtacctc   3300
tcgcagggc ggcggccctg tgcggcctgg tctacctgtt cgcgcgcctc cgctacttcc   3360
agggctacgc gcgctccgcg cagctcaggt gagggccggg cggggagcgg ggcggggccg   3420
gggaaagatc gcgggcgggc ggggctcctg gggagcggga ccgaagctgg gggcgggcga   3480
cgggccggag cccagcgcct ttggggattc ggtgggcgag ccctggcggc ggccagagga   3540
agtccccgtg gggccagggt tgcggcgggg aagaagcggg cctcctcgcg ccacctcccc   3600
gctgaccgcc gcccgcaggc tggcaccgct gtacgcgagc gcgcgcgccc tctggctgct   3660
ggtggcgctg gctgcgctcg gcctgctcgc ccacttcctc ccggccgcgc tgcgcgccgc   3720
gctcctcgga cggctccgga cgctgctgcc gtgggcctga gaccaaggcc cccgggccga   3780
cggagccggg aaagaagagc cggagcctcc agctgccccg gggaggggcg ctcgcttccg   3840
catcctagtc tctatcatta aagttctagt gaccgagacc cgggctgcgt tctctgggtc   3900
```

                                          136

```
cgcgggggtg gcgcaccgcg ggctacggag cctggagggg cccagcccga gtccgggcag    3960
cccggggcgg gcttcctagt ggcggcgtga gagtggctgc gaaggaacga gccctccccc    4020
tggggcggga ctggatccgg tcttcacctc ctaccccact ccctactcag cctcggggtc    4080
acaaggccgc ccagtcctgc cggggttcac cctcctagcg ctcagcggtc tcctcaccgg    4140
tcccctcct  caggggcctt ccctcgactc tcagccgccg cagtccctcg tccctggcc    4200
ttcacagctg acactagata gagcctgtgg ctctctcccc aggtgagggc aggggttttt    4260
cttttggtca gcactggatc cccctcgtta actgtaggtg ttcagggcag ccctccgagg    4320
tccgcagagc tgcgggcacc atgggaacga agtgagtcag tgacaggcgg tctcaaggaa    4380
atgtccagaa gccttgggga tccaggggag gcccacagaa acaaagaagt gacttttagc    4440
caagtatgca ggagaaacgg aggag                                          4465
```

<210>   268
<211>   2010
<212>   DNA
<213>   Homo sapiens

<400>   268
```
atgcgcggag gaggctttgg ggaccgggac cgggatcgtg accgtggagg atttggagca      60
agaggtggtg gtggccttcc cccgaagaaa tttggtaatc ctggggagcg tttgcgtaaa     120
aaaaagtggg atttgagtga gctccccaag tttgagaaaa atttttatgt ggaacatccg     180
gaagtagcaa ggctgacacc atatgaggtt gatgagctac gccgaaagaa ggagattaca     240
gtgagggggg gagatgtttg tcctaaaccc gtgtttgcct tccatcatgc taacttccca     300
caatatgtaa tggatgtgtt gatggatcag cactttacag aaccaactcc aattcagtgc     360
cagggatttc cgttggctct tagtggccgg gatatggtgg gcattgctca gactggctct     420
gggaagacgt tggcgtatct cctgcctgca attgttcata ttaaccacca gccatacttg     480
gaaagggggag atggcccaat ctgtctagtt ctggctccta ccagagagct tgcccagcaa     540
gtacagcagg tggccgatga ctatggcaaa tgttctagat tgaagagtac ttgtatttat     600
ggaggtgctc ctaaaggtcc ccagattcga gacttggaaa gaggtgttga gatctgcata     660
gccactcctg gacgtctgat agatttcctg gagtcaggaa agacaaatct tcgccgatgt     720
acttaccttg tattggacga agctgacaga atgcttgata tggggtttga accccagatc     780
cgtaaaattg ttgaccaaat caggcctgat aggcagacac tgatgtggag tgcaacctgg     840
ccaaaagaag taagacagct tgcagaggat ttccttcgtg attacaccca gatcaacgta     900
ggcaatctgg agttgagtgc caaccacaac atcctccaga tagtggatgt ctgcatggaa     960
agtgaaaaag accacaagtt gatccaacta atggaagaaa taatggctga aaaggaaaac    1020
aaaacaataa tatttgtgga gacaaagaga cgctgtgatg atctgactcg aaggatgcgc    1080
agagatggtt ggccagctat gtgtatccat ggagacaaga gtcaaccaga aagagattgg    1140
gtacttaatg agttccgttc tggaaaggca cccatcctta ttgctacaga tgtagcctca    1200
cgtgggctag atgtggaaga tgtcaagttt gtgatcaact atgactatcc aaacagctca    1260
gaggattatg tgcaccgtat tggccgaaca gcccgtagca ccaacaaggg taccgcctat    1320
accttcttca ccccagggaa cctaaaacag gccagagagc ttatcaaagt gctggaagag    1380
gccaatcagg ctatcaatcc aaaactgatg cagcttgtgg accacagagg aggcggcgga    1440
ggcggggggtg gtcgttctcg ttaccggacc acttcttcag ccaacaatcc caatctgatg    1500
tatcaggatg agtgtgaccg aaggcttcga ggagtcaagg atggtggccg gagagactct    1560
gcaagctatc gggatcgtag tgaaaccgat agagctggtt atgctaatgg cagtggctat    1620
ggaagtccaa attctgcctt tggagcacaa gcaggccaat acacctatgg tcaaggcacc    1680
tatgggggcag ctgcttatgg caccagtagc tatacagctc aagaatatgg tgctggcact    1740
tatggagcta gtagcaccac ctcaactggg agaagttcac agagctctag ccagcagttt    1800
agtgggatag gccggtctgg gcagcagcca cagccactga tgtcacaaca gtttgcacag    1860
```

137

```
cctccaggag ctaccaatat gataggttac atggggcaga ctgcctacca ataccctcct    1920
cctcctcccc ctcctcctcc ttcacgtaaa tgaaaccact caagtggtag tgactccagc    1980
agacttaatt acattttaag gaacactgtc                                     2010
```

<210> 269
<211> 3394
<212> DNA
<213> Homo sapiens

<400> 269
```
gaattccgac ttgttttgtg gtctaacata tggtctatgc tgcagaatgg tccatgtgct      60
gatgagaaga atgtatattc tgcagctgtt ggaagaaagg gtctgtaaat gtctgttagg     120
tccatttggt ctataatgca gattaagtct gatgtttctt tctagatgat ctgcccaata     180
ctgaaagtga ggcattaaaa tcccctgcct tttttttgtat taggatctgc ctctctcttt    240
agctctaata gtgtttgttt atacatgtga gtactttggt attgggtgca tatatattta    300
aaattgttac atccttttgc tgaattgatc ccttttttcat tatgtaatga tcttctttgt    360
ccctttttat gttttctgac ttagtctatt atgaataagt ggcgcctgca gacggcccct     420
ggaagggctc tggtgggggct gagcgctctg ccgcgggggc gcgggcacag caggaagcag    480
gtccgcgtgg gcgctggggg catcagctac cggggtggtc cgggctgaag agccaggcag     540
ccaaggcagc caccccgggg ggtgggcgac tttgggggag ttggtgcccc gccccccagg     600
ccttggcggg gtcatggggc cccccattc tgggccgggg ggcgtgcgag tcggggccct      660
gctgctgctg ggggttttgg ggctggtgtc tgggctcagc ctggagcctg tctactggaa    720
ctcggcgaat aagaggttcc aggcagaggg tggttatgtg ctgtaccctc agatcgggga    780
ccggctagac ctgctctgcc cccgggcccg gcctcctggc cctcactcct ctcctaatta    840
tgagttctac aagctgtacc tggtaggggg tgctcagggc cggcgctgtg aggcacccc     900
tgccccaaac ctccttctca cttgtgatcg cccagacctg gatctccgct tcaccatcaa    960
gttccaggag tatagcccta atctctgggg ccacgagttc cgctcgcacc acgattacta   1020
catcattgcc acatcggatg ggacccggga gggcctggag agcctgcagg gaggtgtgtg   1080
cctaaccaga ggcatgaagg tgcttctccg agtgggacaa agtccccgag gaggggctgt   1140
cccccgaaaa cctgtgtctg aaatgcccat ggaaagagac cgaggggcag cccacagcct   1200
ggagcctggg aaggagaacc tgccaggtga ccccaccagc aatgcaacct cccggggtgc   1260
tgaaggcccc ctgccccctc ccagcatgcc tgcagtggct ggggcagcag gggggctggc   1320
gctgctcttg ctgggcgtgg caggggctgg gggtgccatg tgttggcgga cacggcgggc   1380
caagccttcg gagagtcgcc accctggtcc tggctccttc gggaggggag ggtctctggg   1440
cctggggggt ggaggtggga tgggacctcg ggaggctgag cctggggagc tagggatagc   1500
tctgcggggt ggcggggctg cagatccccc cttctgcccc cactatgaga aggtgagtgg   1560
tgactatggg catcctgtgt atatcgtgca ggatgggccc ccccagagcc ctccaaacat   1620
ctactacaag gtatgagggc tcctctcacg tggctatcct gaatccagcc cttcttgggg   1680
tgctcctcca gtttaattcc tggtttgagg gacacctcta acatctcggc cccctgtgcc   1740
cccccagccc cttcactcct cccggctgct gtcctcgtct ccacttttag gattccttag   1800
gattcccact gccccacttc ctgccctccc gtttggccat gggtgccccc ctctgtctca   1860
gtgtccctgg atcctttttc cttggggagg ggcacaggct cagcctcctc tctgaccatg   1920
acccaggcat ccttgtcccc ctcacccacc cagagctagg ggcgggaaca gcccaccttt   1980
tggttggcac cgccttcttt ctgcctctca ctggttttct cttctctatc tcttattctt   2040
tccctctctt ccgtctctag gtctgttctt cttccctagc atcctcctcc ccacatctcc   2100
tttcaccctc ttggcttctt atcctgtgcc tctcccatct cctgggtggg ggcatcaaag   2160
catttctccc cttagctttc agcccccctt ctgacctctc ataccaacca ctcccctcag   2220
tctgccaaaa atggggggcct tatggggaag gctctgacac tccaccccag ctcaggccat   2280
gggcagcagg gctccattct ctggcctggc ccaggcctct acatacttac tccagccatt   2340
```

138

```
tggggtggtt gggtcatgac agctaccatg agaagaagtg tcccgttttg tccagtggcc       2400
aatagcaaga tatgaaccgg tcgggacatg tatggacttg gtctgatgct gaatgggcca       2460
cttgggaccg gaagtgactt gctccagaca agaggtgacc aggcccggac agaaatggcc       2520
tgggaagtag cagaagcagt gcagcaggaa ctggaagtgc cttcatccag dacaggaagt       2580
agcacttctg aaacaggaag tggtctggct ggaactccaa gtggcttagt ctgggggatc       2640
aggaggtggg aggtggatgg ttcttattct gtggagaaga agggcgggaa gaacttcctt       2700
tcaggaggaa gctggaactt actgactgta agaggttaga ggtggaccga gaaggacttt       2760
tcccagtctt cagtggcact tcccaagatc tcccttccct tgtgctctgt gctgatttta       2820
ggacagctaa gatgactgcc atgtgctgtg gcaggcctaa tttgtcttgt tctttccttt       2880
ccatatccca gtataatctc tgttaatcaa caggactacc ccaagaaccc atgtgctctc       2940
ccgagtaacc cagatggctg tcttgttcat tccatcctac atttctgact cctttcagac       3000
tcaacacagt tcccttctta gtgaccaaaa tggtggccta ctggctggtc tagctgacag       3060
tggtacttag caaaggccac tgtttccata gtgaccagct gatacctctt cctgccctct       3120
agtgtgcaat tgggtgttgc ctcagtttcc tcccagctca gttttattag atcaaagctg       3180
ttgttgggca ccaggttggc cacctcaatc accagccaag atggttgctt tgtccaccag       3240
aggtcaagtt cacctctctg gtgctgtagt tcccagctcc ttcctgattt ttctaatcgc       3300
tccttctggg gaacaggaag ttgatattgc catggtggcg gggtatgccg tcacctcagt       3360
agttttactg taaaagggaa atttgaagga attc                                   3394
```

<210> 270
<211> 2303
<212> DNA
<213> Homo sapiens

<400> 270
```
cccggcgtcc cgtcgagccc agccccgccg ggggcgctcc tcgccgcccg cacgccctcc         60
ccagccatgt cgtccatcct gcctttcact cccccgatcg tgaagcgcct gctgggctgg        120
aagaagggcg agcagaacgg gcaggaggag aaatggtgcg agaaggcggt caagagcctg        180
gtcaagaaac tcaagaagac ggggcagctg gacgagctgg agaaggccat caccacgcag        240
aacgtcaaca ccaagtgcat caccatcccc aggtccctgg atggccggtt gcaggtgtcc        300
catcggaagg ggctccctca tgtcatctac tgccgcctgt ggcgatggcc agacctgcac        360
agccaccacg agctgcgggc catggagctg tgtgagttcg ccttcaatat gaagaaggac        420
gaggtctgcg tgaatcccta ccactaccag agagtagaga caccagttct acctcctgtg        480
ttggtgccac gccacacaga gatcccggcc gagttccccc cactggacga ctacagccat        540
tccatccccg aaaacactaa cttccccgca ggcatcgagc cccagagcaa tattccagag        600
acccccaccc ctggctacct gagtgaagat ggagaaacca gtgaccacca gatgaaccac        660
agcatggacg caggttctcc aaacctatcc ccgaatccga tgtccccagc acataataac        720
ttggacctgc agccagttac ctactgcgag ccggccttct ggtgctccat ctcctactac        780
gagctgaacc agcgcgtcgg ggagacattc cacgcctcgc agccatccat gactgtggat        840
ggcttcaccg accctccaa ttcggagcgc ttctgcctag ggctgctctc caatgtcaac        900
aggaatgcag cagtggagct gacacggaga cacatcggaa gaggcgtgcg gctctactac        960
atcggagggg aggtcttcgc agagtgcctc agtgacagcg ctatttttgt ccagtctccc       1020
aactgtaacc agcgctatgg ctggcacccg gccaccgtct gcaagatccc accaggatgc       1080
aacctgaaga tcttcaacaa ccaggagttc gctgccctcc tggcccagtc ggtcaaccag       1140
ggctttgagg ctgtctacca gttgacccga atgtgcacca tccgcatgag cttcgtcaaa       1200
ggctggggag cggagtacag agacagact gtgaccagta ccccctgctg gattgagctg       1260
cacctgaatg ggcctttgca gtggcttgac aaggtcctca cccagatggg ctccccaagc       1320
atccgctgtt ccagtgtgtc ttagagacat caagtatggt aggggagggc aggcttgggg       1380
```

139
```

```
aaaatggcca tacaggaggt ggagaaaatt ggaactctac tcaacccatt gttgtcaagg   1440
aagaagaaat ctttctccct caactgaagg ggtgcaccca cctgttttct gaaacacacg   1500
agcaaaccca gaggtggatg ttatgaacag ctgtgtctgc caaacacatt tacccttttgg  1560
ccccactttg aagggcaaga aatggcgtct gctctggtgg cttaagtgag cagaacaggt   1620
agtattacac caccggcacc ctcccccag actctttttt tgagtgacag ctttctggga    1680
tgtcacagtc caaccagaaa cgcccctctg tctaggactg cagtgtggag ttcaccttgg   1740
aagggcgttc taggtaggaa gagcccgcac gatgcagacc tcatgcccag ctctctgacg   1800
cttgtgacag tgcctcttcc agtgaacatt cccagcccag ccccgccccg ttgtgagctg   1860
gatagacttg ggatggggag ggaggagtt ttgtctgtct ccctcccctc tcagaacata    1920
ctgattggga ggtgcgtgtt cagcagaacc tgcacacagg acagcgggaa aaatcgatga    1980
gcgccacctc tttaaaaact cacttacgtt gtcctttttc actttgaaaa gttggaagga   2040
ctgctgaggc ccagtgcata tgcaatgtat agtgtctatt atcacattaa tctcaaagag    2100
attcgaatga cggtaagtgt tctcatgaag caggaggccc ttgtcgtggg atggcatttg    2160
gtctcaggca gcaccacact gggtgcgtct ccagtcatct gtaagagctt gctccagatt    2220
ctgatgcata cggctatatt ggtttatgta gtcagttgca ttcattaaat caactttatc    2280
atatgctcaa aaaaaaaaaa aag                                             2303

<210>   271
<211>   990
<212>   DNA
<213>   Homo sapiens

<400>   271
ggctgtgcca ggtgcacatt tagcacccgt tgccttctct aggagccgct cctagcttgc     60
cttatcacat ccacgtgacc cctcagagca cagcagcttc tgattctcca tcctatttc     120
ttctcttgac tgatacattt gggcacttct agggaattca gaaaccaagg gaagggggga    180
agtgctggct tttgctcctg cccagctgaa aggcttgaaa acagttcagt aattctgggc    240
aggtttctct ccttaaatta aaatccaata tgggccccctc tgtacttaac attccaaatg    300
ctcattccaa acactttgcc aacgaaggca aacagtagag aagttaaata cagtgctgcc    360
cttgaggctc tccaagggaa aggcgaatga atattctcca ggccctctgc ttattcctct    420
ctgcctattg tgaaggcaat caggccagac tattgagggc atctggcagc aggactcagg    480
caggtatgaa gtagccagcc acaagtgtga aaaggaagag tgctgagaga aactgcctag    540
tcatgtgata tccctaatgc actgtgcttt cttccctcaa gaaccacccc ttctggttcc    600
gctgcatgta catgctgatc tggggcaagt ttgtgctgta caaatatgtc acctgttggc    660
tggtcacaga aggagtatgc attttgacgg gcctgggctt caatggcttt gaagaaaagg    720
gcaaggcaaa gtgggatgcc tgtgccaaca tgaaggtgtg gctctttgaa acaaacccccc    780
gcttcactgg caccattgcc tcattcaaca tcaacaccaa cgcctgggtg gcccggtgag    840
ctgctggtgg ggagcctgga ccctggttcc ttccttccac tgtcttccca gattggaggg    900
caggggtgta ccatgtcacc cctatgcgtc tttcccatct gggcagaacc ccctgtcgct    960
cacactgact ttgaccccca cctataccc                                      990

<210>   272
<211>   2100
<212>   DNA
<213>   Homo sapiens

<400>   272
ctaaagcaaa tggttatgag ccttagagtt tctgaactcc aagtactgtt gggctacgcc     60
gggagaaaca agcacggacg caaacacgaa cttctcacaa aagccctgca tttgctaaag    120
gctggctgta gtcctgctgt gcaaatgaaa attaaggaac tctataggcg gcggttccca    180
```

140

```
cagaaaatca tgacgcctgc agacttgtcc atccccaacg tacattcaag tcctatgcca    240
gcaactttgt ctccatctac cattccacaa ctcacttacg atggtcaccc tgcatcatcg    300
ccattactcc ctgtttctct tctgggacct aaacatgaac tggaactccc acatcttaca    360
tcagctcttc acccagtcca tccggatata aaacttcaaa aattaccatt ttatgattta    420
ctggatgaac tgataaaacc caccagtcta gcatcagaca acagtcagcg ctttcgagaa    480
acctgttttg catttgcctt gacaccacaa caagtgcagc aaatcagtag ttccatggat    540
atttctggga ccaaatgtga cttcacagta caggtccagt taaggttttg tttatcagaa    600
accagttgtc cacaagaaga tcacttccca cccaatcttt gtgtgaaagt gaatacaaaa    660
ccttgcagcc ttccaggtta ccttccacct acaaaaaatg gcgtggaacc aaagcgaccc    720
agccgaccaa ttaatatcac ctcacttgtc cgactgtcca caacagtacc aaacacgatt    780
gttgtttctt ggactgcaga aattggaaga aactattcca tggcagtata tcttgtaaaa    840
cagttgtcct caacagttct tcttcagagg ttacgagcaa agggaataag gaatccggat    900
cattctagag ctttaattaa agagaagttg actgcggatc cagacagtga aatagctaca    960
accagcctaa gggtttctct actatgtcca cttggtaaaa tgcggctgac aattccgtgt   1020
cgggccctta catgttctca tctacaatgt tttgacgcaa ctctttacat tcagatgaat   1080
gagaaaaaac caacctgggt ttgtcctgtc tgtgataaga aggctccata tgaacacctt   1140
attattgatg gcttgtttat ggaaatccta aagtactgta cagactgtga tgaaatacaa   1200
tttaaggagg atggcacttg ggcaccgatg agatcaaaaa aggaagtaca ggaagtttct   1260
gcctcttaca atggagtcga tggatgcttg agctccacat tggagcatca ggtagcgtct   1320
caccaccagt cctcaaataa aaacaagaaa gtagaagtga ttgacctaac catagacagt   1380
tcatctgatg aagaggaaga agagccatct gccaagagga cctgtccttc cctatctccc   1440
acatcaccac taaataataa aggcatttta agtcttccac atcaagcatc tccagtatcc   1500
cgcaccccaa gccttcctgc tgtagacaca agctacatta atacctccct catccaagac   1560
tataggcatc ctttccacat gacacccatg ccttacgact tacaaggatt agatttcttt   1620
cctttcttat caggagacaa tcagcattac aacacctcct gcttgccgc tgcagcagca   1680
gcagtttcag atgatcaaga cctcctacac tcgtctcggt ttttcccgta tacctcctca   1740
cagatgtttc ttgatcagtt aagtgcagga ggcagtactt ctctgccaac caccaatgga   1800
agcagtagtg gcagtaacac gagcctggtt tcttccaaca gcctaaggga aagccatagc   1860
cacaccgtca caaacaggag cagcacggac acggcatcca tctttggcat cataccagac   1920
attatttcat tggactgatt cccaggccct gctgctccca tccccacccc agatcgaatg   1980
aacttggcag aaagaagaga actttgtgct ctgttttacc ttactctgtt tagaaaagta   2040
tacaagcgtg ttttttttcc ttttttttggc aaaattaaaa gaaatgtaca gagaacaaaa   2100

<210>    273
<211>    167343
<212>    DNA
<213>    Homo sapiens

<400>    273
atctaccatg atcaagtggg cttcatccct gggatgcaag gctggttcaa tatacgcaaa     60
tcaagaaatg taatccagca tataaacaga accaaagaca aaaccacat gattatctca    120
atagatgcag aaaaggcctt tgacaaaatt caacaaccct tcatgctaaa aactctcaat    180
aaattaggca ttgatgggac gtatctcaaa ataataagag ctatctatga caaacccaca    240
gccaatatca tactgaatgg gcaaaaactg gaagcattcc ctttgaaaac tggcacaaga    300
cagggatgcc ctctctcacc actcctattc aacatagtgt tggaagttct ggccagggca    360
attaggcagg agaaggaaat aaagggtatt caattaggaa aagaggaagt caaattgtcc    420
ctgtttgcag acgacatgat tgtatatcta gaaaacccca ttgtctcagc ccaaaatctc    480
cttaagctga taagcaactt cagcaaagtc tcaggataca aaatcaatgt acaaaaatca    540
```

141

```
caagcattct tatacaccaa taacagacaa acagccaaat catgagtgaa ctcccattca    600
caattgcttc aaagagaata aaataccтag gaatccaact tacaagggat gtgaaggacc    660
tcttcaagga gaactacaaa caactgctca atgaaataaa agagggtaca aacaaatgga    720
agaacattcc atgctcatgg gtaggaagaa tcagtatcgt taaaatggcc acactgccca    780
aggtaattta tagattcaat gccatcccca tcaagctacc aatgactttc ttcacagaat    840
tggaaaaaac tactttaaag ttcatatgga accaaaaaag agcccacatc accaagtcag    900
tcctaagcca aaagaacaaa gctggaggca tcacgctacc tgacttcaaa ctatactgca    960
aggctacagt aaccaaaaca gcatgttact ggtaccaaaa cagagatata gatcaatgga   1020
acacaacaga gccctcagaa ataacgccac atatctacaa ctatctgatc tttgacaaac   1080
ctgagaaaaa caagcaatgg ggaaaggatt ccctatttaa taaatggtgc tgggaaaact   1140
ggctagccat atggagaaag ctgaaactgg atcccttcct tacaccttat ataaaaatta   1200
attcaagatg gattaaagac ttaaacgtta gacctaaaac cataaaaacc ctagaagaaa   1260
acctaggcat taccattcag gacataggca tgggcaagga cttcatgtct aaaacaccaa   1320
aagcaatggc aayaaaagcc aaaattgaca aatgggatct aattaaacta aagagcttct   1380
gcacagcaaa agaaactacc atcagagtga acaggcaacc tacaaaatgg gagaaaattt   1440
tcgcaaccta ctcatctgac aaagggctaa tatccagaat ctacaatgaa ctcaaacaar   1500
tttacaagaa aaaaacaaac aaccccatca aaaagtgggc aaaggacatg aacagacact   1560
tctcaaaaga agacatttat gcagccaaaa aacacatgaa aaaatgctca ccatcactgg   1620
ccatcagaga aatgcaaatg aaaacyacaa tgagatacca yctyacacca gttagaatgg   1680
caatcattaa aaagtcagga aacaacaggt gctggagagg atgtggagaa ataggaacac   1740
ttttacactg ttggtgggac tgtaaactag ttcaaccatt gtggaagtca gtgtggcgat   1800
tcctcaggga tctagaacta gaaataccat ttgacccagc catcccatta ctgggtatat   1860
acccaaagga ctataartca tgctgctata argacacatg cacacgtatg tttattscgg   1920
cactattcac aatagcaaag acttggaacc aacccaaatg tccaacaatg atagactgga   1980
ttaagaaaat gtgkcacata tacaccatgg aatactatgc agccataaaa aatgatgart   2040
tcatgtcctt tgtagggaca tggacgaaat tggaaatcat cattcacagt aaactatcgc   2100
aagaacaaaa aaaccaaaca ccgcatattc tcactcatag gtgggaattg aacaatgaga   2160
acatatggac acaggaaggg gaacatcaca ctctgggggac tgttgtgggt kgggggaggg   2220
gggmgggaca gctttagggg acatacctaa tgctaaatga cgagttaatg ggtgcagcac   2280
accagcatgg cacatgtata catatgtaac taacctgcac attgtgcaca tgtaccctaa   2340
aacttaaagt ataataataa taaaatttt aaaaaaggaa aaaaaaaga aagtcagttt   2400
tgctagatat atagtccttg gcatgcattt tctttctttg agtatcttaa atatgttctc   2460
atatttttt ctaatattaa acattgctat taaaaacact gataaaatct aattttcttt   2520
ccttgtaagt cacttgttct tttcctagat cccaaaggtt tgcttgtagt ctaaatattt   2580
tccagaatat gtctgttgtt cattgttctg ggtcagtatt ctcaagtgta cactgtgttc   2640
ttttagtgtg tagtttcgtg tctcttcatt ttagcaatta tagtatttag taattgaata   2700
ttatgagtgt taattattat tctcacttgg ttttctgtga tgccacataa gattcccтta   2760
tgtggcatct tgcttatctg tcttcaacat ttgttaggtt cttttgaatt gtttaaatct   2820
cttcatttct ttttggtatt ttttattaat ctactcttgt gtttctatta caggttgagt   2880
gtcccttatg tgaaatactt gggaccaaag tgtttcagac ttcagacttt ttccgatttt   2940
ggaatattgc tgattgagca tcccaaatcc aaaatccaaa gtaatccagt gagcatttcc   3000
tttaagcgtc atgtttgcct caaaaagctg cagattttag accatttctg acttcaggtt   3060
ttcagatttg ggatggtcaa catgtagttt agtcttcatt tccaaaatga tgttttcttt   3120
tatttctaat tctttattga gtttttgtcac ctcatttata agctttgctg gttttttcatg   3180
tatgtacctc tttcatgttt gtataacttt aaatctttt tagcttattt gaaattctgg   3240
tgtattgttg gcatgctttc actctctata tgacattgta tttctaattt gtaacagctc   3300
ttttattct cttaatcttt tattttgtag caatctcttc tcattctta gctatactat   3360
cttatttttc taacgatagt aaggacaagc tgttcttaaa gttttcttct acctgcctaa   3420
```

142

```
tttatttctt ctaatttccc tgcctgctcc tctgccccca cttgaggcct ttattatttt    3480
agagactttt ctcaaattta tggtagtcct tggctattgg ctcatgttta agagttgaac    3540
gattaaaaaa actaattaga aagtctatgt gccatgggta gggcttgttc acttccacac    3600
tttaccataa agtaatctga ttgagctgtt tctttgtgga atcctctgcg ttagaatctt    3660
ttcattaatt tttttctttt gaggctgatc ggattcttca gagaagattc tttcagcccc    3720
ctaccctgag gggaataagc ttactcatag tgctttggca gccaaatgag gagaggaaca    3780
ttgttcctct gtaaattttt gtttaggaag gctgtctcag ttgatggttt cccgtagtcc    3840
agactttcat ttttactccc tccagagaac aacctctggt agcatacctg agaggagaag    3900
ggacatctgc tgagctatat ggaaggaatg aggagatctg gaaggttcta agtatctcgt    3960
ctcttttttc aacagttcct cttgttttta ggttgattca acttcctgat acacctgttg    4020
ttttcagttg ccatattttt tgtgggttct gcagtagaaa ttaaacgttt gcattgaact    4080
ttcctgggcc tatgaagtca gttatcattt gtctgtctac tttctaaaat gccttgctat    4140
tgtctcttct ctcattctct ttgtcttaag ggtgtgtgtg tgagagtgtg tgtgtgtgtg    4200
tgtgtgtgtg tgtgtgtgtg tgtgtgagaa gccctgttca gtgttgtttc aggagagaga    4260
ggagaggcta atggcatgca ttcatttcac cccagtactt ggacctgtat tgtacagtga    4320
atgtcaggga agttactctt caggtctcct gattcttttg gagcaaatga taaaacgttt    4380
ttctgttgac acatttgggg cgacatagca agaccatgtc tctatttttt tttttttttt    4440
aaaaaaagaa atggctgagc acggtggctc atgcctgtaa tcccagcact ttgggaggcc    4500
gagttgggcc tatcacaagg tcaggagatt gagaccatca tggccaacat ggtgaaaccc    4560
catctctact aaaaatacaa aaattagccg ggcatggtgg tgggcgcctg taatcccagc    4620
tacttaggag gctgaggcag gagattcgct tgaacccggg aggtggaggt tgcagtgagc    4680
cgagatggcg ccatagcact ccagcctggt gacacagtga gactctgtct caaaaaaagt    4740
aaaaataaaa acagagaaat ggtcataaag gaatcctatg aacaattata tgccagtaaa    4800
ttaaaccatt tggatcaaat ggacaaatta ctagaaagga atgctgtaga acatgaagaa    4860
atgttcacct ggtagttgac attgtgatcc atttgcaggc tgttaccttc tcctctcaag    4920
gatgcagtgg aagtctcaac ctggagaaga tgctatacaa tgcaagaggt gaactctgcc    4980
cttagtaaaa tccagctggt gggatattct cagaaaattg tgagtattca tattacattt    5040
cagttattca tgaatgcttt ccattcatat tgttgtttgt tgtttggaag aatcctatag    5100
ttacgttttt aaagccattc cattgctgag gatccagagc ctctgttctt tcctccgttc    5160
cgcgcaggat tttattggtg ctctttcccc accctcacat ctccatcacc agccagcatt    5220
cgattggcca gcgtgcaggg agtccggaga aaggcgtctc atcctgttca cattagattt    5280
tatagatttt ggatgggtga aacgggaaga gagaagagtt tgtcaagtgt gactttttgag    5340
ctctgaccta aatgataagc cttcccattt cttactgtca tcctgtgccc agagctactc    5400
agtaccgaac aacaagggcc taacacctaa ctgaaaatga aaaaggaaag ccaaagtgtg    5460
tgagtctttg gtctgtttgg taatatttca tctctccctt ttaatgtgtg aaccttgagt    5520
gcctggggac atggaagaga gctgaagctc tcaggtgaca agtaaatatt ataggattgc    5580
tttctttgtc tgccagttga tctgcatcat ctttctgttt tccttaaaac tttctagttt    5640
actttattga ttgattgact gagacaaggt cccacttggt tacccaggct ggagcgcagt    5700
ggtacaaaca tggctcactg cagcctcaac ttcccgggct ccagtgatcc tcctgcccca    5760
agtagctgct tgaggactac aggcatgtgc caccatgccc agctaatttt tgtatttttt    5820
tgtagagaca gggtttcacc atgttgccca ggctggtctt gaactcctgg cctcagcctc    5880
ccaaagtgct gggattacag gcgtgagcca ttgcacccag tctctggttt actttaaaat    5940
aatttttgtt tttaaactga ggatatttct gttgttttc cctgcagaat tacctcatgt    6000
gactgtcact gtaagctcat tgcacattct tactgtggtt ctcttttagg agcttttttgg    6060
tgcggtccag gtgactcctc tgagctctgg ctatgccctt gggagctcca actggatcat    6120
ccagtctcat tacgagaaag tgtcttatgt ctctggatcc tccttgctta ccacacaccc    6180
ccaggtaatt ccaaattctc ttctagcaac tcagcttttt ggttacttaa gtcaaattca    6240
```

143

```
gaatgtatcc aaggaaccat cagccatttt taaatcttcc aaatatggtt ttctacagat    6300
actctctagc caaggtagac tatttgagtc tcaacatttt gacctacagg tttctctgaa    6360
atagtcctgc taccttgagg gtcactccta ggattctgaa atcccccagg ccttccaaag    6420
accatagcct gatgtgggac acagatggtt atgcatttac tcagcaaata ttaactgttt    6480
aaaatccttc ccaagggcca agtgtcaagt gtcatgcaca catctgggta ttggggattc    6540
agtggtgacc aacgggcaaa gcatgtgccc gtagatctta tgttgtaggg gagttgatga    6600
tgttggggag aggatggtgt atagtaggta aacaaataaa gtgcctggtc atttccgatt    6660
gagatacaag tactgaaaac agtaaagcag ggtgattttc agaatgatgg ccattggttt    6720
agattgggtg cccaggaaag ccaatgggaa gatctcactt gaactgagac ctggagagat    6780
aaaccatgtc ggctgggcgc ggtggctcat acctgtaatc ccatcatttt gggaggccga    6840
aatgggataa ctgcttgagc ctaggagttc aggaccggcc tggcaatat ggcaaaactc      6900
tgtctctaca aaaaatacaa aaattacccg ggtgtggtgg cacacgctgt ggtcccagct    6960
actcaggaag ctaaggcaga aggatcgctt gagcctggga agcggaggtt gcagtcagcc    7020
gagattgcgc caccgcactc cagtgcgggt aacagagtga gattatgcct caagaaaaaa    7080
aaaaaaaggc cgggtatggt ggctcatgcc tgtaatccca gcactttggg aagccaaggc    7140
gagtggatca ctttaggtca ggagttcaag accaacctgg ccaacatggt gaaaccccat    7200
ctctactaaa aatacaaaaa ttaggtgtga tggtgtgcac ctataatccc agctacttgg    7260
gaggctgagg cgggagaatc acttgaactc gggagacaga ggttgcagtg agctgagatc    7320
atgctgctgt acccagcctg ggtgacagag tgagactcca tctcaacaaa aaaaaaaaa     7380
aagagagaga aagaaaaaag aaaaacagag aaattagcca cgtaaagccg tgagtgtttg    7440
tattacaaag ggatggccag tgaagggccc ctaaagtaag aataagctgg gcatgtttga    7500
agggcagaga aggctattgt ggtcacagcg tggaggtcag cagtgaggtc caagagagtg    7560
gcagacacca tgtcatgtag tgttagcagg ctgtgaggag gaattttggt tttattttaa    7620
tatggagagg gaaactattg gaacgtttta agttattcat tccagtcata tttggcaaga    7680
agcctagcac atataaacat tgttatgaat gtgatactta ctcctttttg gtatttgtaa    7740
ataatttact gttcatttcc tgaatgttgg ttatttctat gtttgtaata gggagtgggg    7800
ggacattagt tagctgttga atgggtatat agatacatta ggtaacttgt ggaagtccat    7860
attacatttg tttatctaca tctatttacg gagagagaga gagagagaga aggtcttgtt    7920
ctgtcacccg gactggagta cagtggtgta gtcatagctc actgtaatct caaactcctg    7980
ggctcaagca atcctcccaa gtagctagga ctatagccac cacacctggc ctatttattt    8040
tttaacataa cctcaaattt ttattgtctt cataataaaa ccaaaaatga agctaagaac    8100
tggatcactt ggccttttct ccttttatcc cttcccagtt aaaaatactt gtatctctta    8160
gtagccagca ttctcctaga tctgcagttg ggcccaacac ttaagcttta gcacaatctc    8220
gtttgtagtt ttagcctttt tccagaagat tggcttggtc tgcctacata gccacccctt    8280
cctgccatta agccactttc ccttggcata cagatcatct tttcccttct tgtaccatgt    8340
cactctgtgg ggttggtgcc aaccatgctt cttacacaaa gtccagtggg tttgaagaac    8400
attcaccatg ttagagcact atcagtaaag aaagaaagaa attattcatt ttttaattac    8460
aaataaaaat tgtatatatt tatggtatgc atgatgtctt gatatgtgca tgcattatgg    8520
aatggctaag tcaataatta acagacccca ttttaataca gggagaacca tgctgtgctc    8580
tagtgttgaa caataggatg tctgagctgc cattctgtat tatttcttta taccttcttt    8640
tatagccaag tttcatctca agatctagag gggacgttgc tattttttcc tgcatctggc    8700
ggaattctgg gcccttcctg gttattgaaa tcaaaagccc atcaatgtca ccatcatctg    8760
cttcattgaa tcaaaatttt ttattggcag cttctatcgt tcctgatatg ttcttccata    8820
aaagacagaa agatgacttg gttgccaact ctcgcgattt gtcctgctta gttcaaagcc    8880
tttacagtac tattgatgta atttccagta aattattctt acaaggtcca taaatttaaa    8940
gggaaaataa tgtcttgaaa gtaatgagca acatacctaa gtaattaatt ttaattttta    9000
gctggcaacc tgtgttatat gtaaaaaaga aaaaaattag attttctct acccacgtaa      9060
ttggattgtg tattgaattg gcagggatga gaaaagtttt ggtttgaaaa acttgataga    9120
```

144

```
ctaatgcaga tgttagcaaa ctgtggcctg ggcactaaat gtagcatgcc acctattttg   9180
gcatataata ttttgttgaa gtacagccac acccacttgt ttatggaatg tttatggctg   9240
aatatacacc gtaggctgga caaggtggct catgcctgta atcacagcat tttgggaggc   9300
caaggcaaga tgattgcttg agcccaggaa ttggagacca gcctgggcaa catggcaaga   9360
tcccatctct acgaaaagtt aaaataaaat aaaaaaaagc caggtgcggt ggcatgcgcc   9420
tgtggtccca gctactcggg aggctgaggc atgaggattt cttcagcctg ggaggttgag   9480
gctgcagtga gccatgtttg tgccattgta ctctagcctg ggcaacagag caagaccctg   9540
tctcaaaaaa aaaaaaaaag ttataatggc agaattctac tttaaatgtt agagcaaact   9600
ttgctaaccc ctggtctact tgagtacaat ctttactaac taggaagaat atcacaggct   9660
gctgtagaat tctgataaac atggggaaat aaggctttgg attaagcctg aggcagtaag   9720
aatggagaaa agagttaaaa cattggcggg tctttaatgc aagaaacatt tgttgaatgc   9780
ccactgtctt cagaaaagaa agaataaaag ttacagatct tatgtctgca tgacattgag   9840
aatggtgtta atggccattc cagttaacaa ggaagagttg gcagagggac atttgttgca   9900
gaagagggta gtaggtttca tgaatgtgaa tttgagagaa cattagacag atgtaaatat   9960
ggggctggaa ctgggatgtg gaggcaagtc tggagacaaa ctggagagtt gtcacgtttt   10020
aaaaatctaa ccgggcacgg tggcacacac ctgtaatcct agcactttgg gagaccaagg   10080
caggcagatc acaaggtcag gagttcaaga ccccaacatg gtgaaacccc atctctacta   10140
aaaatacaaa aattaaccgg tgtgatggtg ctcacctgta atcccaaata ctcgggaggc   10200
tgaggcagga gaatcgcttg aacccaggag gtggaggttg cagtgagccg agatcgcact   10260
attacacttc agccagggca acagagagag actccgtctc aaaaaaaaaa aaaaaatcta   10320
aataaagggc tgagggccaa agactgatcc atagggaact tttaccaaca gacagtggaa   10380
gaaagaaaaa tagtcttgtg taagaatgga tggagagtta aaggaaaatt gaggccaaag   10440
agtgcaacct cccaaaggga gaaggaagag aactagcctt tactgagcat gaggtctcag   10500
tattaatttt ttaattgact tgatatttag caaccatgct gaattctctt aattctaata   10560
atctattgat attatcttgc caaagaagta acagttttct cacctctctt ctaacctttg   10620
tatctttat ttttcttatc ttgtgactga gccctataat actacgttgc acagcaatga   10680
tgatagtgga catccttgtc ttgtataagg ctgtaaaagg aaagcttttg tagtttcttc   10740
gttaaacatc acgcttactg caccatgttt atttgtcaag ttaaggagtg tctcctttat   10800
ccccaacttt ctgatttttt aaaagtcaga tataagtgtt ataccttatc aaatgctttt   10860
gagcatgtga gatcaacttt gatttctctc ctttgagacc attaatgtag tgaactgcag   10920
tgttagcttt tctcacattt aaccatccaa tattcctggg ataaatcttg cttgattaca   10980
atctattctt tttaaaatac tctccaggaa tgagttggtg aatattttat tgaagtttat   11040
aatctatagt cataggtgaa aaatgggccc atacattatt ttcttgtact acctttgttt   11100
gttggaagcc aaggtgtatt agtctcataa ggtgatttgg gagcctttcc ctctttttct   11160
aatgtcagaa aaaagtatat gagataggga ttatctttc ctgaaagttt ggtcaaatgt   11220
tccataaaac tgtctggacc tggattacca ttattgaact atattttctg ggccaaaatt   11280
gtgccagaat tttggcagag atttgtcctt tttgcttagg ttttcaaaat cataggcata   11340
gagctatta taatcctctt ttatttgttt aacctttttt gtgtaagtct gttttcattc   11400
taaattttat tttcatcatc atcttgatca gacttgctag aagtttgtct gtattattga   11460
ttttattcaa aaaataagtt tttgctttta atcgtttggg ttgtatttc atcctttgtt   11520
ctgcccttta tctccttcct tccttcttta ctttggattt actctgttta atacttgcta   11580
agtgtgtttc agtgtttgct tttcgataaa tgtatttaaa gcaaccggtt tcttagtata   11640
attttactct gttacatttt tgatactcag tgctttgtca ttcatctcta agtatgtcat   11700
aattttctct ataatgttca tgatttaaat aacyaaaggt tattttacag tataattgtt   11760
tgtttctagt ccatccagtc tgattagacg taggattaga ggaaatgttt ttaagcatat   11820
gtttcaggat tctaatcttt tgcattataa taaacatatc ctgatggact gaaatttgat   11880
tagtcttcct ttgaagcaca atctattttt gtaaatgttc tacgtgtctt ggaaaagaat   11940
```

145

```
gtgtattcac tgttgggtaa aatatttcta tatgtatttg agttttttgc attattcaag  12000
tcttatatct ttgcttagct actgatttct gaaaagggtg tgttagttgt tgatttatct  12060
gtttctcact gtagtttgcc aatttttact tttttaatat ttctaagctg tatactcagg  12120
agtccatata ttcatgatca ttgtgtttta tcaatcagtt attctttttta tcaggatgct  12180
tcgatgcttt cttttttttct ctataaaaac tgcattaaaa gctaagaggc ttttttccccat  12240
ttcatatgtg cctggtttttt tttgttttgt tttgtttttt tgagacaagg tcttgctctg  12300
tcgctcaggc tagagcacaa tggtgcaatc tcaactcact gcagcctctg cctccgcagt  12360
tcaagcagtc ctcccacctc agcctcccaa gtagctggga ctacaggcac atgtcaccgt  12420
gccttggcta attttttgttt tttttgtaga gacaggatct tcctatattg cccaggctgg  12480
tctcaaactc ctggcctcaa gcgatcggtc cacctttggc ctcccaaagt gctgggatta  12540
caggcatgag ccaccgtgct tggccgggat ttttttttta atctagtgtc tcttggttgg  12600
tgagcctgtt tgtgtttctt gtgatgacta ttgtagtttt accatcttct ttcatgtttt  12660
tagttcattc ttttcctagt cctttcttgc cttcctttag aagtgtaaat ttccttctgt  12720
atatgtgaaa atgcacattt tatttttatt cttctgagtt atttcttagt ttattttttc  12780
tgtgactatc ttacttatca gtatctgtat cttttcctccc aaagccacac tgtcctcatc  12840
tcccctatct cccctcatct cttcctttgc acatcatacc ctatgatgac catggtgaaa  12900
ccatctagaa ttttagttct gggtcgttta gaacatacat aatacggtgg tgaatatatt  12960
ccttactgca acaacagtga tcttcattga gatatattgt aagttttttca accttacttt  13020
ccataaacag gatctcataa catcctgcta gattgacttt tcttcttcca ggaatgcttg  13080
aggaatggga atctagaggg tcttgaagtg gtaagcctgt gaggccttga attattaaga  13140
atgtctttaa ttttttttctc acatttaaat gatagcttgg atggattaaa aatcaaaggc  13200
aaaaaacttc gataggataa agctttggaa atatgacttc attttccact tgtatcgctt  13260
gttgtcatta agaaccctga agccatttag atttgcgttc cattatatgg gatctgcttt  13320
tagaattttc actttaatat ttgtaagttt taaaattatt tctcttcaat gtgtgttttt  13380
cctgtgaatg tagtatctgt gagatcttcc aatttccttt aacttaaata aattcttagt  13440
catattttaa attacttact cctggttgat tttcttttcc ttttaaggaa tttctagtat  13500
tatagatact gacacttctg tgtattgcat gtctttttttc ttgtgtattt cccacctact  13560
tcatgaagcc tcctggaaaa aatcttccag cccctgaatt cattctcagc cgtattcatg  13620
ctgctcctca gcctatctat tgaactcttc atttccacaa ctatactttt gttcacagta  13680
tttctaggtg tttctctttta tacctgctca ttttaattgc cctctgtgta tttttgggac  13740
attttaatac atatattcct actctctggt tcactaattc tccctgtggg gatagatttt  13800
agctcaccat gtttagtaga tgctgccttc cttggtgttc ttgtttgatt ccctgtgagc  13860
tcttcttgct tgaccctcag ggaccctcct ctcataccac tgcttcaggc attgtttctc  13920
ctgagtgtct ccctgacttg tcaccacttt gcccttgtgg tgtgagggaa caagcaagga  13980
gtggcttggt gttctgtgaa ccttcatccc actgttctgg catttccttc ctcatgcagg  14040
ggggcggggg gtattgaacc ttccacaatc tgccaactgt aatacggagg aaagaaaaaa  14100
ggacaaaggg tttttaccca gcctctcctc cacccgcagt agaggcgatt gcctgccatt  14160
ttgtcctcat tgcaagaccc ctagtttccc caggaattta tcccagtttt gatttagttt  14220
ctcaaatttg tcagctgccc ttgcttctga gcgtctctgt cctctaagtt tagattctgg  14280
gagtgtggca gagcatattg gctcatgcct gtaatcccaa caccttggga ggccaaggtg  14340
ggaggattgc ttgagctcag gagtgttcaa gaccagcttg gacaatatag tgggaccccg  14400
tctctacaaa aaatcaagaa agaagctggg cgtggtggca catacctgtg gtcccagcta  14460
ctcaggatgc tgaggtggga ggatcgcttg agttagggag gttgaggctg cagtgagctg  14520
tgactgcacc agtgtgctcc agcctgggca acaaagtgag accctgtctc aaaataaata  14580
aataaaaata aaaatagatt ctgggagcat gccagcagtt catgcccatg tgtggtcttg  14640
tcaggagtta taatagacat cttattttga aataatatta ttttcttcta tttctgatta  14700
gaaaatttta atttgtatttt attgtaataa ttttggaaaa tacaaaaatc tcagagaaaa  14760
gataaaaact atatgaatcc tgacattaag agctatttgc agcctgcttt tctactcttt  14820
```

146

```
ctgatgaact gtatagtgaa ctttacttag gtcatcatgg attctaccac atgacatatg   14880
atatctgttt ggtggtctgt cgcgtggata taccatgaaa tgtttaactc ttccactgtt   14940
ggacatttaa atggcttaaa acttttttcc ttaaaaaaac ttatttcaaa cagttgtaca   15000
gtctgcccag aaaaagggcc caggacacag tttaaaaatg gtaatactaa tagaacaaaa   15060
caagcagcac ctgttggaaa gatcccataa acgtattggc aataactagc aagcactttt   15120
gattattgaa gccgcagcct ttctggccct ggctaatcaa atgaatggat ttgcttgtga   15180
cctgcgaacc tgtatttgaa tactacattt tgtattatgt tggtttgaaa agtcaactta   15240
atagtcatat tatttcaata gcttcttggc tactctgtct gacttcaggg gtagacttga   15300
gtttgagatg tgaaattccc cagcatagta tagcaaaagc tacatatacc tagacgttag   15360
ggcttggttt tattatttac ttactttatt tatttatttt tgagacagtc tcactctgtt   15420
gcccaggttg gagtgcagtg gcatgatcat gactcactgc aacctcaaac tctatgggct   15480
cagatgatcc tcccacctca gcctcccaaa tagctgggac tacagtgcac cagcacatct   15540
ggctaatttt tttttttttt tttttgtaga aacggggttt taccatgttg cccagggtgg   15600
tcttgaactc ctgggctcaa gtgattcacc catctcagcc tcccaaagtg gtgggattac   15660
aggcatgagc taggcctggt tagttttaga aacttatcta taatagaatg tgacactgat   15720
gtccttacca ggctaagatt tgaagtatgg aaaattgtag ggcgtggtag aatattttgt   15780
tgttactctt ggcagtatgt tttcatttgt gtttaggttt agtttgttta ttgttttgat   15840
cttttctcat ctttctgacc acaaaagaaa cctggaaagt atccatccta cgcctttagc   15900
tcttacctga aggccttgaa gactctccag caccaacacc ttggtctctg ttctggaatg   15960
aatttggaaa accaagcaca gccagtcaaa tgggctgttt ccttcccata taactttgg    16020
ccttgaagct aagacacgtg gttctctggt ttctaaggtt ccttgggtct atgagggaga   16080
aggagaggag agattatttg aaagcaagga ttccacaggg ggatgtctgc cttcgagcag   16140
tggttcttaa cattttgtgg gtcattaacc aaaagcctga tagtaagaat ctgagagaac   16200
tactccaaaa aaagtaataa aacatttatg cacattgaca cagacttcgc tttttatttc   16260
tggggaccct gagtttatgg agtcctcaga agcccattgt tatttatcag gttaagaatc   16320
tctggcttag aattttggaa ataaatttgtt taagaaatga aataaaagaa aatgaattgg   16380
cattttccac ccagtcattc cctgagctta tgatgtttta ttcttcactg tgggaattcc   16440
ttcttatcca tgggattgga aggcggtgat tggcctatga gaatgtctcc tagagctggc   16500
acaattcccg cacctgtact tcatgatcct tttcccttttg aaggtcaggg gaatgctcct   16560
attggctcat tttcttgagg tcttaaagac tctggcactg gttgggcctg gtggctcccg   16620
cctgtaatcc cagcactttg ggaggtcgag gcaggaggat tgcttgagcc caggagtttg   16680
agaccaggct gggcaacatg gtaaaactcc atctctacaa aaaatacaaa aattagctgg   16740
ccatggtggc acacacctgt ggtcccagct acttgggaag ctgaggtggg agtcttactt   16800
tagcccaagg aggttgaggc tgcagtgagc tgagatcacg ccattgcact ccagtctgag   16860
caacagggca agattctgtc tcaaaaataa ataaataagt aaataaagac tggcagtaat   16920
gtagtttctt aaatctaaag aaaatatctt aaatttggat ttcttgtatc aaggtttttg   16980
ttttttgggt ttttttttgtt tttttttttgt ttgtttgttt tgagacagag tcttactctg   17040
tcactcaggc tggagggcaa gggcatgatc tcagttcact gcagcttctg cctcctgggc   17100
ttaagagttc ctcccatctc agcctcctga gtagctagag gtataggcgc acaccaccat   17160
gccaggctaa tctttttgta ttttttgtag agatgggggt ttgccatgtt gctgaggctg   17220
gtttcaaact cctgggctca agcgatccac ctgccttggc ctcccaaagt tctggatta    17280
taggcgtgag ccaccgtgcc cagccgaatc aaattttttaa gaactaaggc agttgctatg   17340
taggtttgtt ttgtttttttt gtaatgattt cttcccccctg aatttcccca aatgttttgc   17400
tgtttctgca atactatgct ctgatctgga agctctacag taaaagttaa acctaatata   17460
tttgggggct agggtggcag gtaggctgag ctactaatag tccatggatc agttggaggt   17520
tggttccatg aagcaaggag ggggagactg gacaatttac tggccctcca cctgtttctt   17580
tccacgcttg ctatcttgtt tgtcttatct ggctgtacag cttctctctg cagaatattt   17640
```

147

```
ccttctctca gaagtaacgt ataccatttta tgtgcatttg tttagttgtt cattcattac 17700
ctcacatagt tagtgatatt tcctaaaccc ctactttggg gaacagagtt aactaggcta 17760
taggagaaac atgaaattta cagatgttat aatagggga gaagatgtgt acatgcagaa 17820
cttttctcca gggtgcaggt gatccgtcaa gtggatctgc tgcttccatc tcctcacctg 17880
ccatgacatt ataatttgtt tctcctgtct ggactgctat atgggcctta aaaatgttct 17940
ctgtctgttt gctctcaccc acctcctttg gtgaaatctc ctgtaattgc tgttaccaga 18000
atgtcatttg ctgcttcaga ctgttggctc ctcactgcct gctctgtcag tgggcatgat 18060
cctgaccttt ttggcccttt accaattgca ctctctttac tcaactcctt tctccggccc 18120
aaagtacact ctccatcctg gccaagtaca ttcatttggc atatgcatgc tgccttgccc 18180
tgcccatgcc ctcccgcctc ctgcagtctg catgcttccc ctcaccttcc tgactcccac 18240
tgcactctcc cagtgtgaaa ttctgatgtt tcctaccaga ccatgttctt tttatatatt 18300
catctgttca gcaaatgttt gtttagtaaa tgctgtatgc caggcatttt gctaggcaac 18360
agggaaacaa agttcttgcc ttcacggagc ttcagagtcc tgtgggggac acagacaagt 18420
aaatagtact ttcagtttgg agtgatcagt gctgagatag aaagtattag atgccccagg 18480
gcacatatta aagggacaac ttggtatagg ggaagggaga gatgtccggg agatgttcca 18540
aaggcagtga gtgacccagg ctgttgaaat tgagtattaa gttccttagc caaggagtga 18600
aagaaaactg gagcaaaaca tcatctgcca aaaagccatg tattactgac ctcagcacac 18660
caatgtggct gagtgaggcc cgagttgggt gttgctggct aggggtcccc ggcttgcaaa 18720
gtgaccaaga agaagaatca cttgtttgtg actttcaact ttgtaaggta ttttaagttg 18780
gtacttggac aagatggctt tttctttgtg tgtgtatttg aacaaaatgt tcccgtttgc 18840
agcactcatt gagtggtcat tgacaccagt aatctataca tttgcccttt agtggtgaaa 18900
tggagttgtt tgaggtgtca gcttggtttg gagtgtcact aaaagccttt taagcctgct 18960
tcatcacagt agccctggga atcaacgaga aatgtctctg agttaagagc taaaattaca 19020
aacatccagt ctgacctgat catgaggtat cttacaatgg ttccaactcg gtgacattcg 19080
acattcgtac tgtagcactg cctctgtttg tttgttagtg gtcatttaac attcaaagga 19140
agaagatgct aatggccaag gttcagagat aatgtttcta gagtttgctc tgtgttatat 19200
gttttgtttt gtttgagacg gagtttcgct cttgttgccc aggctggagt gcaatggtgt 19260
gatcttggct cactgcaacc tccgcctccc gggttcaaac aattctcctg cttcagcctc 19320
ccgagtaggt gggattacag gtgcccgcca ccacgcctag ctaattattt gtatttttag 19380
tagagactgg gtttcgctat gttggccagg ctggtctcga acgcctgacc tcgtgatcca 19440
cccgccttgg cctcacaaag tgctgggatt acaggtgtga gccactgagc ctgacctgtg 19500
ttatatattt ttatctggat cagtaggtct tttgtttat ttgagaggga gagagtcttg 19560
cactgccacc caggctaaag cgcagtggtg caaacatagc tcactgcagc ctcaaatgtc 19620
agagttcaag tgtgaatcag tagttcttca tcttttggg gtcatggccc catttcacca 19680
cccagttaaa tttatggaaa agtatacaca gaggctggtc gtggtggctc acgactgtaa 19740
tcccagcact ttgggagatc aaggcaggca gatcgcttga ggtcaggagt acaagaccag 19800
cctggccaac atggtgaaaa gtttctctta ctaaaaatac aaaagttagc cgggcttggt 19860
gatgagcacc tgtaatccca gctactcagg aggctgaggc aggagaattc cttgaaccca 19920
ggaggtggag gttgcagtga ccgagatgg caccactgca ctccagcctg gcaacagag 19980
ctgtctcaaa gaaaaaaaag aaaaagaaa agtttacaca ggcacacaca gaattgtata 20040
taccatttta gaaggttcct ggatcctcta aagtccctca tctcccttta gccctcggga 20100
tcattattgg ttcattctaa caaggtccat ataaatgat tgccatttta agctaactgt 20160
gctatccatt gatgccttgg ttcctttctc accattctgg tttccttgca gttgataact 20220
cgcacacgag aaacagtctg aggccccta cacatctgct gctaagaatc actgtcctgt 20280
acttcccttc ctctcttctc tggaaataat ggatgcatat gtatttgttg gagaagtaca 20340
aatagatgag ttctgcccaa gcagagaaa agctcttaca tatttgtgtg aatatacttg 20400
tgcaaataga aaatagaagc tattcacata tagctgtctt caccactggc cttttctgt 20460
ttccatatta aatgttttc aggttataaa gccgcttata acgtaagatc aaaattgtgt 20520
```

148

```
tatttaaaaa ataatgaagc tcatgtatcc atgcttatat ataatagaag gtgaaaggaa  20580
aatactgaag gcacagctac tcggagacca caatgcagat gttgagactt tgctattatt  20640
tggaatttta tttactgcga aattgggtgg gagagaaaaa agaggagtaa gccttcttag  20700
taaactgtgt tgctggcttt tttcttctga cgatccactg ggtattttca atggagatga  20760
ggaaaggatg tgtttcagat ggaaaccttt atgaactctc ctgtgagctc tccagcttct  20820
caatccatgg gccctcattt tggtttctta ttttaatcct aatttattta gaaagggtaa  20880
tattttttga aatgctttga aaacaatcaa aattacattc aagctgtggt gagtaaaaat  20940
aaaaacacag catcctaaga atcacatagt agtgtgccct gggagttcct agttcacaag  21000
aagatcatgg atgttaacct gagagactta ctgaagtcat ctaggggaga tgggtcaaga  21060
aatagcccca ttttatagga aatccagctc agagctgtga ctgaggtcat gaggctggtc  21120
atggaattgg gagtagattt gaccttctag ttcccaatcc agggttcttc atggcttcta  21180
tgccactggg acttagtgta aatctcctta cctctttgag tcctaaattc catattccga  21240
tagtgtatgc ttatttcctg tgcttcagag ttattctgag aatcaaattc tataacgtat  21300
gcttctcaaa gtgtgattcc ccaggccggc aatggcagca tctcctggga agatgtgaaa  21360
atgcagattc tcaggcccca ccccaacctg aatctgaaac tctgggaggg gcccaacaat  21420
ccgtgtttta gcacaccgtc caggggattc tgactcatga agcttgagag ccactgatga  21480
cacgtgagat agcattttga aaagaagaaa gcattacaga aatacaagat accttgtttt  21540
aatggaggta aaatgtatat atggtgaaac acaaagatct taaatgtgta atactgaatt  21600
ttgatataat cagtgcccca gtgaagatac agaacttgtt catcccttat aaagctccct  21660
cttgcctcct cccatcagtc cccacccaac ttaggcagcc agtggttaag gacagactat  21720
tccttagaga acataagaga actcgatgat gggttaaacg tagaaagagc aatgtctgtg  21780
ttctcgtatt ctttcactat ttgtaggtaa tgttcctttt aaaattacta accatatttc  21840
tgtgttcttt ttcagcccat ggaccaagct tctctcaaaa acagcgatgt tcttgttctg  21900
acagggctta cccagatccc cactgcaaac ccagatggaa tggtgggaga gttctgcagc  21960
aacctaggtg tgcaaccgtc tctcatctta cgttggatga tctatcttgc atttatttta  22020
caataataaa tataatattt tacaataatg ggggaaggag tgcttacagg gtagcagttg  22080
tcaaaggagg gaggcagtat atctttgcaa ataatagcac agaaaagagt gttacacttt  22140
gaactcacag cagcgataca gtgaacagat agatatgtat gaatgtttgt gtgtttgttt  22200
ttgagacaga gtcttctctg tcacccaggc ttgagtgcag tggcataatc ttgggttact  22260
gcaacctctg tctcctgggt tcaagcagtt ctcctgactc aatctcctga gtagctggga  22320
ctacaggcgt gtgccaacac acccggctaa tttctgtatt ttttgtagag acatggtttc  22380
accatgttgg ccaggctggt ctggaactcc tgacctcagg caatccgccc gctttggcct  22440
cccaaaatgc tgggatttcc ggcatgagcc acagtgcccg gccaaacagg tatatttttt  22500
ccccactaat atttggttgg ttttattttt tcttcttttg aggaaaggct aaattaagag  22560
aggtatgggg cattttctac ctggaagaaa tttattttcc ttcggatata actgtcacta  22620
aatctggaag ttctgcttct catttagaca aataggttgg ttactgtctt agttagtttg  22680
ggctgccgta acaaaatact gcagacatta acttctcaca attctggaga ctgggaagtc  22740
tgagattagc gtgccagcat ggtcgtttct tgatgcagat gattgccatc ttgcagtgtc  22800
ctcatgtgga gaagagggga agctctggtg tctcttcctc ttcttttttt tttttttttt  22860
ttttttttga cacggagtct tgctctgttg cccaggctag agtgcagtgg cacgatcttg  22920
gctcactgca acctccgcct cccaggttca agcgattctc ctgcttcagc ctcccgagta  22980
gctgggacta caggtgtgcg ccactgtgcc cggctaattt ttgtattttt agtagagaca  23040
aggtttcact atgttggccc atctggtctc gaactcctga cctcatgatc cgtccgcctc  23100
ggcctcccaa agtgctggga ttacaggtgt gagccaccat gcctggcctc tcttcctctt  23160
cttatgaggg catgaatccc atcatggggc ctgcaccctc gacctcatct aaacctaatc  23220
acttcccaaa gtccctgcct ctctgtacca tcacagtggg ggttaggcca acatgagaat  23280
cttgtggggg acacacacat tcagtccgta acagctacca aagaggtatt aatgagctca  23340
```

149

```
gaccttcagc tccagcaact ttaagtgata ttacttctgc tctaggaaga agaagtggtc  23400
atcttatatt tacacggaag gcactgttct tagaaattaa acttagccat gctaataaac  23460
atagtctgtt tttgttcttt gatactaatg caaaggtaat ttatttgtac cttagaaaaa  23520
taattggact aatctcaaat agagtcttgg tttgtatgtt tgtttataat ctagaatcac  23580
agactcaaag aactttaggc ttgaaaggaa ccttacattt aattcagtct cccaaagtgg  23640
ggtccactaa ccgcattccc ttaagaccaa tgggattact tattaaaaat gcaaatttgg  23700
gggccctacc ttagacctag taagtcagaa tctctgggga aaggagactt ccagaagaaa  23760
agttgcattt tcaacatatt ctctggcatt ttccacgcaa actaaagctt gaaaattact  23820
gatctaattc attcttttca tgtaactgat gcagaaactg aggccaagga aggttgtagt  23880
ggctttcctg tggtcctgtg ggttgggaca aaggtaggat ttgagacagg ctcttgagct  23940
atgaccagcg atgttgattt tctccactgt atcctactct agtaccatac tctagtaata  24000
gcaagtccac cagccctcaa gttatagcat ctaggtgagc ctaagtactt aaagtatagg  24060
ggattttcct gcagacaaat gttaatgaaa gaaaatacta ctaactcctg cagacaaacg  24120
ttagtcaaac agaaaaactc ggcctatttt cttataggtc attcagccat ggtcagagac  24180
tgaacagaga caaatccagc aaatttttga gcaggatcta aaacgggaag gagcttggag  24240
gctctgtcct gaagctcagc tgccattggt aaaaacccaa acccgtagtc acatgctcta  24300
ttcccaggga cctagattag acaatgatga gaaaatcatt atcagcctat agcatcccct  24360
gctttgatgt gttcttcaaa agaagcagct tattagacat gtaagtaaat cataaaaaca  24420
gaagtaggaa aacaagtgca aatcttattt tacaagttta tctttataac actgcccttt  24480
tgatatgatg ttttttctcc tctggcatcc acttttctag ctctgacagt ccggaatgga  24540
ggaaacgtgt tggttccctg ctacccttct ggagtgatct atgacctcct ggagtgccta  24600
tatcagtaca tcgactcagc cgggctttcc agcgtccccc tctacttcat ctcccctgtg  24660
gccaacagtt cactggagtt ttcccagatc tttgctgagt ggtatgtccg tggttttttt  24720
ttttgtgtgt gaattttatt tgattcagga cattcaagca gtaagaataa aaataatcct  24780
gtttttttctc acattactgt ggaaatttca ttttgttgtt tttctgtctg tgataagatt  24840
gcattattaa aagccaaatc tgttgcattg ctaagtttag aataatagtt gtcaaagagg  24900
gaagaatgca aggcagagac ttaccttagc ccagcacttt caaaactggt aacaaaaatc  24960
ttatatactt atcacatgtc accctctgcc tgttactagg tgaaatgaca ttctaaaagt  25020
taaaaaaatt ttcaagccca atctcatgtt gtctaaaatg tatagtgcca aatctgagaa  25080
gaaaaactag atttttaaaa attgcaatag tatgatattt gacaaaattt tattacatca  25140
gaaaattgat caaatcctag agttggcaaa atatgaaaca atatgaaatt agtgaacctt  25200
tttagagtta tttaggtgca tgtttgaatg taactcacct gaccaaaaat aaagggagaa  25260
gaggaaaata acttttacaa tatccccagt ggtgccttag aatggtgctt cccaaacgtt  25320
ccgggactgt gacacaggca gtctaggctg catttaatcc cttttagtca tgaggtagcc  25380
gatagacaca gcatgtactg agtttctaat taaaaaggaa tttgtacatc atcttctcat  25440
gatatattca gttacgctgc ccccaacct tgcttttgta aagtactttt ttcattccct  25500
tctgtggtcg tttttttccc ccctgtgttt agactcatac aggcgtctct atcccatgta  25560
caaattattc ttctttgtca ctttttttttt tttttttgaga cggagtcttg ctctgttgcc  25620
caggctggag tacagtggca caatctccgc tcactgcaac ctccgcctcc tgggttcaag  25680
caaatctcct gcctcagcct ccgaagaagc tgggattaca ggcacccgcc accatgcccg  25740
gctaattttt gtattcttag tagagacagg gtttcaccat gctggtcagc tggtctcgaa  25800
ctcctgacct caggtgatcc acccgcctcg gcctcccaaa gtgctgggat tacaggcatg  25860
agccactgcg cccaccctta aataacatta gtacattatt attaactctg aatctttatt  25920
ctgattgcac cagtttttcc acaaattttt tttttttgtt tttgtttggg atccaatcca  25980
gggtaacaca ttgcatttag gcctttgatt ttttttgtttt tttgcaagaa gttttttta  26040
gtttttttata ctgatagttt tagtctcttt tgcagtttct tctgttgata ctatgtttag  26100
aaaattcttg cctctatagg tgtcacatgg ctaaacatac tttctttcag ttttattgta  26160
gcttctttct ttctttttttt acatcacccc ttaactattt tatctggaat ttgtttttagt  26220
```

150

```
atatagtatg aagagaagca ctaatttcat tttttcccaa gtagtcaagt acttacctgt  26280
ccaagtacta tttattgagt aatgttaact ttttcagctg atttgtatta atgccatatg  26340
ccagactttc atatgcacca ggttttgttt ctagactatc ctgattgagt gatccattca  26400
ttctttggcc aacatgatgc taatatattt taataactgc agcctcactt ataattgtac  26460
tctgtggtaa agtacatttc tccattattt ttcttagaat cttggagct attttttgctt  26520
acttattttt gtggaagaat tgtggaatca ctgtatcagt tttcagaata tcttttttgag  26580
tccacaaaac ctataaatta cagtttgcag tagtttttccc atgctgagac atgggatgtg  26640
tgtctgtctt ttaagctttt caaatattcc tcccgtagac tcttaaactc agtgatcata  26700
ttattcttgt ttccatcgat agttctattt gcttaaatcc ataaacctтt aagtgccaaa  26760
gcactgagga tacaaagagg tccctgacct tgaggaatct gtaccatgaa ggaagaggca  26820
gctgtgtaaa cctcttacca ctcggaagta atctgatgga aatatataca cacataccca  26880
cacacacacc tacgtatatc tgtatggtat tcagagaagg ggtgggtggt daccccattt  26940
gggggggttaa gaaaggcatt ctggaaggag gtgctcctga agaataacca agaatcagcc  27000
agacagaaac actatttaag gatgagttgg gtggtctgcc ggcggtgatg tgtgggtgga  27060
gaggataaca caagccaaga catagatggg aggttagaat ggtttggttt gttcagagaa  27120
ctatccatag ttctttattg ttacagtatg aagttcaggg tggggagtgg cagggtatga  27180
ggctagaggg atcctgtcca tggggggggat tcattggagg attctaagca ggaaatgaac  27240
atgattatat gtgcattta tatagagcct tctgcattta tgtgaagttt gttgggaggt  27300
ggtgggaggg ggtgcaactg aagtacaaga caagagtctt tgcagaagtc gagggactga  27360
agactccagt ctctaccatc ctggaggaaa gcaaggcagg aacccatatg agaggtgatt  27420
aggaaataca aggggcagga cttactggtt acttgataca gaaaaggtag caatcaagat  27480
tgacaccaca atttctagtg tagtagatcg tgttgacccc aaacaaaata ggttctacaa  27540
aggaagggta ggttcataca gcaagtgtgg ttagcttagt ttggttttgt ccctgagggc  27600
attgacggtg cctgaggcag gggatgtgca ggtgaaactt gtccaatcca aagatctgag  27660
aagcccaggc tggagtcata ggttggggtg tcctcagcgt tgaggtagtt gagtggctgg  27720
gattgccaca agaatgaatg ggattgtctg gggagaggat ttgaggttag aagaacaggc  27780
agtggggaaa ggatggactt aagtaatgcc tgcatttttg gggtcattag agaacaaata  27840
tttaggaaaa gtgtgaagac aaatagttaa agaagtagaa gaggccgatc agggtggctc  27900
acacctgtaa tcccagcact ttaggaggcc aaggcgggag gattgcttga ggccaggagt  27960
tcgagatcag cctgagcaac atagcaagac ctcatttcca caaaagatta aaatattagc  28020
agggtatggt ggtgcatgtc catagttcca gctactcggg aggctgaggc aagaggattt  28080
cttgagcctg ggggatttct ctgtgtttct gtttcactgt gctgttctct ttcatgcagc  28140
cttgctgtaa ggcacccttt ttccctaaat aaggaactca gttaccaaaa tggagagctg  28200
ctagctccag acttgcatta acttagcaag tcccagcccc ccatgccagg accaccacaa  28260
gcctgtgctg agggtttggc ttcctctcct ctttggtgtt ctgaacgggt gcttcacagc  28320
ctggctgctc tgtgctcagc ctcaggcccg gcctgctgtt ccctatcact ctggttccct  28380
ggctctgtgc ttcccgttct caggggttct gctctggctt ctacatggtc ctgctttgat  28440
gcctgcagaa gcccagcccc ttgctgtcca gtgtctgccc ttgctccgag ctaaggggct  28500
tggttgtttg ggttggtttt gtttttgcag gggatggaga tgggagggaa tagctcttga  28560
aagacctctc tgatcttttg gagtttggag tgttgggggtt cggagtgttg gttggttggt  28620
ttttgagaca ggctctcact ctgtcgccca ggctggagtg cagtagcaca atcacggctc  28680
actgcagcct caacctcctg gtctcaagcg atcctcccac ctcagcctcc tgagcacctg  28740
ggactacagg tgtcaccatc atgcccagct aattttttgta cagacaaggt tgcatctcgt  28800
ctgaacccat gaactcctgg gttcaagtga tctgcccgcc ttggccttcc agagtggtgg  28860
gattacagtc ctgagccaca gtgcctggct ctgatccttt tttgaacaag cagtggaaga  28920
gtgtgcggta cctgaggtct ggccatcagg gagcaggagg gtctgtcaca ttcccaatta  28980
gagataatcc tagaagcgcc atttattctt cattcttcct gataatctgg tatacacaga  29040
```

151

```
tctccttttg aactctaaca gctaccccca gaagaagcaa actctaatca ggtccttcag   29100
cctctgtctt agaaaggggg tgggtccctg tctgctgtgc ctgcatgagg attctagagc   29160
agagtatgga ggatctgtta gcagaactgg cctaagcatt atgtaggtgg gcttcacaat   29220
ctctaatcat attgtaatct cttctgtatc cctaatctct gcctttaatg catgtaggat   29280
aatgtccttt ggaacaatca aaataagttt agaaccaagc tcttatattt gtctccctga   29340
gctagaaata aagacagaac tagtgtctat ttagataata taaggtaacc ctccaaaagc   29400
atcttgctct tccatattta tatcttccaa gtagggtata aagtgatgtt tttttaaacc   29460
aaacttaaac gaaactaagg gtaggaaaaa ttagatacaa tgtattaata caaaatccaa   29520
gccctgaagt cctgagctcc tcccctcaaa gtagtgacta ttttttttaaa tgtcaaacct   29580
gcacaacacc cacatatatt gatttatcaa ctgtgaactt tttgccacat ttgctttatc   29640
cagacatctc agtattgtaa agtcataact gactaggaaa aagcaaatgt aaattaccaa   29700
aaacattcac attgtctcta gcctgtgatc ctttgttctt ctctagttgg agttaccaat   29760
gctgctgtta aaagagtgt gagggccagg cacagtggct cacgcctgta gtctcagcac   29820
tttgggaggc cgaggcgggt ggatcacctg aggtcagcag tttgagacca gcctggccaa   29880
catggtgaaa ccccgtctct actaaaaata caaaaattcg ccgagtgtgg tggcaggtgc   29940
ctgtaatccc agctacttgg gaggctttgg caggagaacc actggaaccc aggaggtgga   30000
ggttgcagtg agccgagatc gcgccattgc actccagctg ggcaacaaga gcgaaactct   30060
gtctccaaaa aaaaagtgca tggacaaaaa cagaagccat gtctcaaggt gtagatcact   30120
ttctttgtga aattgaccac aactaaatgc aatatgatac cacggattgg atcctggaac   30180
agaaaaggga catgactgga aaaactagtg aaatctgaat gaagtctgga gtttagttga   30240
ttgtcattgg cctgatgtta atttcttagt tgacgactgt gccagtcata tcagatgtta   30300
actctgggga cataggtgga agaggccatg gaaactctgt actgtctttg cagcttttct   30360
ttaaatctaa aattattcca aaataacaag tttatatttt aagaaaaaat gtattgagaa   30420
attctaaagt ttaaaaacat acaagataca tctcttctct gtaggcactg gatttcattc   30480
acagtgaaat tcactggcgg gaaattttta aataaacttc agtatttaat atttgcactg   30540
ctgccactag gtggcaacag atgccaccgt atgctcttcc tcacatgctg atgtgttttt   30600
cctctttaat aggctttgtc acaacaaaca gagtaaggtg tatcttccag aaccacctttt   30660
tcctcatgca gaggtaagaa aacaaaatca ctgggacatg ggaaggaagc aatgtggata   30720
acctgatgca gatgcagaca gcaggtcatt agatgaaata gattgctgtg taaacctgta   30780
gacccctttg cctcccaagt cagacacagg gaagtatttt aactcaagct tcacttgctt   30840
tcctcctatt aacactttct attgcgcacg tggagcagcc cttctccaaa atgttgtgga   30900
ccgcagaatt gtttcagact tgggattcgg gaatatactt actggttgag catcccaaat   30960
ttgaaagtct gaaatcaaaa tgctccaatg agcatttcct ttgagcatca tgttggtgcc   31020
caaaaagttc agatactgga acattttgga ttagggatgc tcagcctgta ccatgttcat   31080
gcaattcata gcctgcttct gttctactga ctgcatgatg aattgtattt cgatacatat   31140
tactacctttt ttaaattggg tttatgtatt gtcagagtgt tctttccagt tatgtcagtc   31200
atatatgtac atttttagtg acgaaaataa catttcagtt caacaaataa aaggcttctt   31260
cctccctcac agaacaaatg ggtgttttct atatagctga atacctagct ttgttgtcag   31320
gttcttttca cccaagggta tattatgaac gtttttctgc gtctcatgtt attattgctc   31380
tactacaatg aagctaacag acaatagtta ctcctcattt ttggttatat tttcactcaa   31440
agattctcta aattggtatc accaccttag aaaactgaca gtattggctg ggctcggtgg   31500
ctcacgcctg taatcccagc actttgggag gccaaggcgg gtggatcaca aggtcaggag   31560
atcgagacca tcctggctaa cacagtgaaa ccccgtctct actacaaata caaaaaatta   31620
gccaggcgtg gtggcgggtg cctgtagtca caactgctcg ggaggctgaa gcaggagaat   31680
ggcgtgaacc tgggaggcgg agcttgcagt gagcccagat cgcgccactg cactccagcc   31740
tgggtcacag agtgagactc cgtctcaaaa aaagaaaaaa agaaaactga cagtatctgc   31800
taaagctgaa caatgtactc tatgcctccg cagttttgtt cctaaagtat acattgaaca   31860
gaaatgcata gagatgttac caaaagacac acacacaaat ctagaatttg gtcaggtgcg   31920
```

152

```
gtggctcaca cctataatcc caacactttg ggaggctgaa gtgggaggat cactggaggc   31980
caggaatttg agaccaacct tgacatcatg gcaaaaccct gtctctacaa aaaaatacaa   32040
aaaattagcc cggtgtggtg gcacatgcct gtagttctag ctaccctaga ggctggggtg   32100
ggaggatcac ctgaagctga gggagttcga ggctgctgca gtgaactgca atcgtgctac   32160
ttactgcaca ccagtctggg tgacagagca agaccctgtc tcaaaaaaaa aaaaaaatct   32220
aaaatttttg gtaatagtac tgaaatatac tcaaattccc atcaacaata gcatggattt   32280
tgtggtatac tcacacggtc ccttacatca ctgtgaacaa ataagctcca attatatgca   32340
gtgtagataa actgcacaaa cataatgtga gtgaaagatc cagatataaa agagtagata   32400
tggtatgatt ttatttacat aaaagttcaa aaacacaata aactgatctg tggtattaga   32460
tgccagtgtg gtagtgatcc tggaggggag gggacagtag tgacaggaag gggacaaaga   32520
gggatttctg aggagctagt aatgctttat ttcttgatgt acatgtgttc accttgtaaa   32580
aaatccatca aggtgtagag agttagatat aaggaaagag tgaaggctgg aatgaatcct   32640
gtgctgttgg atagaattga tggtattggt gtgaactcct attttcaata tatgtagata   32700
cagaaagaaa tccacttgtg catgtgtgtg tatgtgtgtg tctgtgcaca tacgtatctt   32760
ccagctctgg ccacacagag ggcctgggag cagtgacatg ccactaactg aggaacacat   32820
ttagctccca catgttggtt tctagatacc attctccact aaaaggaacc aggcctcttt   32880
ggaaaataca agatgaggct gtaagatctt gctgtatgct cagagaaaga tggggacatg   32940
tcagaagcca catctgagat cactggaaca tcaaaataaa taatgctagt aatgaatata   33000
atccactgaa taacagaaac tcctgcatcc atagtgaggt aactgagtac ataggcaaga   33060
ggggaaagtt cttccaacag taaactcata attaacatag gaaagaacct tagaattaga   33120
aaatcaccat ttggcagcca ccgcagtaat aatttattcc tgcaagaaac accagtgggt   33180
gctaaaacca gtgggtgaaa atgttatgaa gaactagatc atttatagtc ccaaaaagta   33240
tgtccccaca aaagtcatgt ttattacaaa gacagaaata gtaactggag tttggacaaa   33300
cttgacatat gcaatcaacg ttaacatcac cagtaattgg actaactgac attgcgtggc   33360
tcttaacaca aattattgag aaagcagcat gatttctgtg atcctgctgc taaaaatgct   33420
tcacctgaat ctagtgagca ttcagaccca agtcgaggat gctcaacaaa ataactgacc   33480
tgtacccttt gagaatgtca gagacctaga ggacaaggga agactgagga actgccgaga   33540
gaatgaagag atgtgacaga tagatgtact ccatggccat gggctggatc tggaaatgga   33600
agaagaaaga tctagtttgt ttgctattag gagcattgat aacagttggt aaagtctgaa   33660
tcgggtgtgt agatgagagg gggcagtgtt gtgtcactgt tcattccctg cttttgatgg   33720
ttgtactgtt ataatacatc catgttaact gcgattatct ccccacactc atttctttga   33780
ttgtcatatt tataaccct cctcaactaa ggcaggtaga ctgtttttac ttacagcatg   33840
tcagtgcaga tagatatgtt tagggattta gttgtttgt tttatagtta actaacacgt   33900
atttcaacaa atgtcctgct aattacttta aatgtaattg ctgtttcat actgtaaagg   33960
ataggtcttt tatgaaccag gatgccaagt agaaggtttt gaagaagtta ttttttggtc   34020
cctgtagtct aaatagtatt ttggcagcca gggttttgc aagctgtgtc aatgccatag   34080
tgaaacacag gctagaaata ttataaaaat gtcagaaaat taagtgtggc aaaacatctt   34140
gtggtggact ttgctcttga atgtctgttt tgcttccttt gcagtcagcc ttgctgtaga   34200
gcttgttttc taggagtgtg atcacattct cactcacaca cctgtcacaa atgacctggt   34260
gccatttaga gttaggaatg tgagtagact gtggtcgtac catgagggtt cctcaggtgc   34320
acttgtcgtt gttagggcat gagggagtca acccttggta atgttaccaa tgcccatgag   34380
aaacggtggt tccacccta gtactggtaa caaattactg ttcagaattc ctgccccaca   34440
gcttcatttc cactggtcaa atgcagtaag ttggctagaa aggtagatcc aattggcaaa   34500
aaacgatgaa tttatcttag tttctgtgca ttgatcagta gagctacagg aactatagat   34560
aatgcttaaa agtgacttac gtgtgcagag acctgctgct attcttagaa tcacattcat   34620
catcttgaca tcttaggata caatagaccc tttttgacag ccactcaccc atttaactga   34680
gacaactaat gattttggcc atatagttta taaaaagaat gtcagttcaa cttgcagact   34740
```

153

```
acctggaagg aacgtgggaa ttcgatgttt gctccggctt tactattcat attccatcca   34800
agcatgcgac agctgatgaa gatctccagg atagtgttag tgtcttccta atacaaccag   34860
gtctcttcaa ttaaagatga ggtcttcaag gtgaagagag tttggcttct gtttggggta   34920
tgtcctattc tggccacatc cccactctta gggtgacttc atttgcactt caaggtgttg   34980
cccagggccc tctcatgcac aacatgtggc aacaggattg agcctatcac aggccattgc   35040
tttatccatg aaacagcctt ccagagcagt gcttcctttg gcctggttga tatttagggt   35100
ctgtgaagtc tgggtgtcta gcctctggat gctggggtgg ggcaaggagg cctgggcagc   35160
aggcacagtg tctgagacgt tacaagatgc catctagtca taactgtctt tgctattgcc   35220
ttgaatgggc ctgacactgg gagatgattg tcaagtgttg tgctgcaggg gagactcttg   35280
gttcaacacg tacacttgaa agaaagcttt gaggctgcgg ggcacctgct tcttttttttt   35340
ttttttttgag acggagtctc actgtcgccc aggctggagt gcagtggcgc catctcggct   35400
cactgcaagc tccgcctcct gggttcatgc cattctcctg cctcagcctc ccgagtaacg   35460
gactacaggt gtccgccacc aggcccagct aattttttgt attttttagta gagacggggt   35520
ttcaccatgt tagccaggat ggtctccatc tcctgacctt gtgatctgcc cacctgagca   35580
tcccaaagtg ctggggggttt ttttgtgtgt gtatgtgttt ttttttagtga cagggtctca   35640
gttacccatg ccagaataca gcgttgcaat catagattac tgcaaccttg aactcctggg   35700
ctctagccac agtatccaac aacttttttt atttttttgta gagacagggt cttgctttgt   35760
tgcccagcct ggtctcaaac ttctgggctc aagcaatcct cttgtctttg tctcccaaag   35820
tgctggaatt acaggcgtaa gccattgtgc ctagcccatt tcttaatata actgtctgtg   35880
ttaccaggac atcacatttc taaaagccaa tttgatcttt gtcgtgcatg tgtgtgtgcg   35940
tgtatgtgtg catgtgtgca cacatgtcca catgctgtac acattcagag aagcttctct   36000
agtagcaaac aacagaaatg atccctgaaa gtacagtctt tggtcttggt ccttattcag   36060
ttgctgcagt agcttaacac agctctagct ttgcaggagg aggtcctgta ctggcaaaca   36120
gtgtttctgg tgtgacagat gtggttactg tcaccaggac ttggtgattc acgagtgttg   36180
ggaaagtcac ttgtacttca aacaagaagt gataatgaga acttcaggcc tggtgtggag   36240
tgtcaggcag cttataaagg aagagtccag ctaaagcagg ccataacaat ctgaatatgt   36300
ttccaggaag tatgtcagta ttaccagaaa gacttgactt gcccatgtgt tccacaaatc   36360
acattctggg taaaaactat tttaataaga ttcacttgta ttttttttaaa ttaataagtg   36420
ttacttttca cagcagtttt aggttcacgg caatcatatg cccctgcccc acacacgcag   36480
ttgcccactg caccatccca caccagagag gtgcgtttgc tacggctgat gaacccacat   36540
tgacacgtca ctctcgccca aagcccagag tttacagtag gggttccctt ggcgttgtgc   36600
tttctatggt tttgaacaaa tgaacagtga cctggatcca ccattacatc atcacacaga   36660
ggagcttcct cactctgcag atcctctgtg ctcagcctgt tcatttcact ctccacgaat   36720
ccctggtgac cgctgagcct tttactatct gtatagtttt gccttttcca gaacgtcata   36780
cagttggaat cataggggcc ttggcttttc agagtggcgc ccttcactta ggaataggtt   36840
ccttcatgtc ttttcgtagc ttggcagctc atttcttttt tagggctgaa taatattcca   36900
ttgtctggat gcatcagttt catccttcac ctgctgaagg acacatcttg gttgtttcca   36960
cgttttagca attaggacat tcatgtgcag gtttcttgtg gacatgattt ttcaaaatat   37020
ctttcaaagt ggctgtatcc ttttgcattc ccaccagcag tgaatgagag tccttgttct   37080
tccatatcct tgttagcatt tggtgctgtg agtgttctgg attttggcca ttttattata   37140
acaggtgtat agtggtatct catcatttta atttgcagtt tcctaatgac atacggtgtg   37200
gagcattttt tcgtatgctc atttgccatc tctcttctct gatgaggtgt ctgttcaggt   37260
tttttgccca ctttttaata gggctgttca tttcttttttg ctgaggtttc ggagttcata   37320
gattctgggt cacagtcctc tctcaggtgt gacttttgca ggtattttct cccaatccgt   37380
ggcttgtctt ctttgttggt attttagatc cagtcccgct caccctcccg tactttggtt   37440
ccccccttcag cctgggcagg ctcacatttc tttgtatttt ttctatattt tccagctcat   37500
tcagaccaat aagctgaagc actaccccag catccacgga gacttcagca acgactttag   37560
acagccctgt gtggtgttca ccgggcaccc ttccctccgc ttcggggacg tggtccactt   37620
```

                                    154

```
catggagctc tggggaaaat ctagtctcaa taccgtcata ttcacgggta agtgaaaaaa 37680
ataaagaaac aaattggttc tctccactga ggccatgagt gaatgcacct acaaggtaga 37740
gacccaggga aggattttgc agtgagacat aaatacaaac attattctac tgtaggtacc 37800
aaagaatgaa gaaaccgcag agaaagagtg aagcagtgtg tgccattgga cagctgggca 37860
tccagcgagg ccttcatgcc tgtgttttca gatttctcca agacagaatc ctgctgagtg 37920
cttttgctag gatatcgtaa gccatttcaa gaagtgcagt gattcagtaa cggtcttgtt 37980
ttacctgtta ggaattgttt acagaggtag atctttttct tctgattgtg gtttactcta 38040
actgtggatt ttcttctgga gacaaatccc tcaggggaaa aaattccttt gataaggtca 38100
agtagagtgt ttacatagat aatgactgta tcattttatc agtgtagcgt gcccagccct 38160
ttgaatgcta ggtctttttt gcttatctgt gataggggat atcttggaaa ttatgcacag 38220
accttttttt tttttttttt ttttttttt ttagctcatc agtcatcatt agtgttagtg 38280
tattttatgt ggggcacgag atagttcttc ttccagtgtg gcccaaagaa gccaaaagct 38340
tggacaccca tgtgttaggg tcttcagtcg gccttgggtt ttagaaatct tacaggctat 38400
gaagaaaaaa gaaaaaaaaa aaaaaaacat tgatttgaaa tctggcccag cttgcagcaa 38460
cctcagccaa ttcaccagca agcatgactg tccccacagt aaatgggact gtcagtagct 38520
acctctgtgg gtcactctgg gcaccaggca cagaacccgg cacatggcgg ctgttgggaa 38580
agcactgtca ccagctccct tcctagcttt aggagctggg aatccagtta caccagaagc 38640
actggggtga cgcttcagcc cttcccccag ctttcatttg tgacctagag gccaccagga 38700
acacgcctgt ggtcaaacca agttgggttt attgcctcat ttcagcaagg ggaacacaca 38760
ccatgggtaa aagaaaagca aaaagacctt gcaggactcc ggctggtgtt cggtgatgcg 38820
caggtgttcg cggaggtgag gcgtcaccct gtattgggtg gcgtcaggat gcagggtcat 38880
tctgcgatgg gtttcttaac tcattcttat ctagaacaca ggaagaatgg agccggcata 38940
gcgggaagtt tgcttatgct gtggtcagga cagttctgtg ttccgtgttc aggatgatta 39000
cagaggggtc ttgtctttgg ccggatccat cattgtcaga caaggtgttg gtgttccagg 39060
aagttgcgtt cacacagcag gaggacacat ggctttgctg tgggtgccag gccggctctt 39120
gctgatacca ggccaggcag aaagtgccag gagaggcccc ggtcaccagg actgctttcc 39180
tcttctcagg cctgctttgg gctaaaggtg gaggaagttg ggccacaaga tattgattga 39240
caacacccag aacttcatag ctgccaagat ttcattaatt aggaggttgt ccagagaatg 39300
tcctatgtag tggggctgag gttggtgtct cctgctcctg ctgctgagtg gtgactcgac 39360
atttgacatg acagtggtga cagcatctac acagcacagt agataacctg gcctttagta 39420
caaatgtttc ttcagctaaa aggaaatcag gactgtgtga tttcctgtga caactctggg 39480
taatgggttt gcatttaaac tggtttatgg ggcttccagg gcagaagttg tgtctgggag 39540
aggttggggc catctttttt tattgttttg tgactcctgg atacatgaaa agggggtcag 39600
tattctcaga gaagcacaat ccactggaat gggcatttat gtacctggca gctctgccag 39660
tttgtcctga caacagtgga gacgtctctg tgtctggtgt gcctaagcca gggtccctcg 39720
tcgctgggca cagactgtgc tgggaatcaa agtgtcacat cagttaggac cgagcgaggt 39780
cttttggctc aaggcaggca gctccctcga gttgggggaa tgttccctgc caagcaggct 39840
gcagcagccc tcaggagaca ggctgagcag agggcgagga ctcttcccgg tctgagggc 39900
tggggctgct ggggagcatc ccagtctcag tctacagacc attcacgggc ctggaggcgg 39960
ggccgtgcgc ttgtcttccg ggtgcatctc acacctgggc gttaactcag agctgattct 40020
aggttcccgg gtctgtacca ggcctctcca ctgtgaagtc agttttttccc attgtattaa 40080
atcagtacct tgtgggggac tctttgaaac tatatacata ttctgttctc cctcaaaatg 40140
gtatctgata tttttagcat ttgttgatga ttttcatctg aataagtgat gaactgtaat 40200
ggttgccaaa cggtggtttt ggttttatt tcatcgtttg tttcttggca tttcgttgta 40260
aaaagagctt tcttttctcc cccacatatg tatttctccc tcatttacct catctgcctc 40320
tgctgaagct tggagcccac ccacagggtc catcccagcc tgccctcct tccacggggc 40380
ccctttgacc tccgtccccc acgtgtgctt cctggctccc tcctgacccc ctgactgtct 40440
```

155

```
gtgggccctc agcgccccag ttgctgtctg gcttggcagc tcctgtgtag tctgcattgt   40500
aagatttctt tcttgtactt tccctagaac cagacttctc ctacctggaa gccctggctc   40560
cttaccagcc gctggccatg aaatgcatct actgccccat cgacacccgg ctgaacttca   40620
tccaggtgtc aaagctgctt aaagaagtgc aggtaatgaa ggacactgct tgtgccttca   40680
cgtagtcatg tcaccttggt gtggctcatg cttgtgtggg gtgaggggag agagatctag   40740
ctgtgtttga ttcttgtctt cagttctcac gcatctgcag aatgctggga cacatgccag   40800
cccccctcca cactgaaaag gagtggtctt tacaccctga ccgcagtttc cattctaaag   40860
aaatcagatg tggaagggaa agaaaaccat ctgtgtccgc ttaaaagcaa accctctcac   40920
ccctgccaaa aaaaaaaaaa gtcattctag aaacatactc actaagctga gacagtttaa   40980
atgaaacgcg ttactggggc cgtgtcgcac gtgtaggctg gtaccacaaa cagtgctgtc   41040
gggtttgggt tttgtggcag ttttttggtca tttgtttcac ttcacatttt ctgccctgga   41100
gaaagggaag aagtagctgg ggtgcagtgt agaccaggag gcgcgcgtag caggaaggca   41160
gggccacgga accactgtgc tggctcagcc actgctcgct gggtttctgg ctcttgagag   41220
tcgggagagg aactggaatt ggcaaggagg acagctgaca ccggcgagga agagctctcc   41280
ctttccactc cctggtgttc ccaggagtga gatgagggtg gaggggccca gcacagcacc   41340
ttcaacctca ggatgagaga ggccctttca caaaactcta aggcagggga acaggaaaca   41400
gagaaagccg gagaacccca ggagggcccc aagagcggat tctggtgatt attaatgtgc   41460
ttgcccaatg aagaaagaat actggcactc tctaggtatg atgagagcag acagcaaacg   41520
tggggcctgt ctacagtgat tcgctacccc aatgtatgct catccacgtt agaagcagca   41580
gtgaaaggcg tgttgctttt cattattaac ttcaaatccc agtccctaaa ccagctcttg   41640
acgcccctct gtcaggtgct aatcctggaa actggaggcc acctggtctc cactttaggt   41700
gaggaaaacc tgggagaagc catcagactg cacctgtggc atgagatgct ttgagacagg   41760
tcaagaggag gagcaaaggg cagtttggag gagaaaagta ttagccctaa ggaacaagtg   41820
cttttggaag ctcagcccgg tcagcctggt ggaaagccgt cttcagcagg gaattcaggg   41880
cttggtccaa gctcttaagt agaagcaggg acaacacagt gcccctgtgg gctgccagca   41940
ttccttttca tttgggtgat atttgtgcaa agtaaaaatt ggtttactaa tctttttttc   42000
tcaagataac aaaaagagac attttgttta aaaaaaaaaa aacaaaaaaa actctgcctc   42060
tgctccttgg ttgcacatgg tgagcacatg agctgaggag tgcccactgc ctaataccag   42120
ctgacctgca gatccagcgg aaactccaaa cccacagcgc cagcccggca cgaaaagcca   42180
cagctcttgg taatcagcca agagcttata atagcaggca tgtgggaatg ttagagaaag   42240
accgtgcccc gaggaagccc agagaccgct gggagcagac acatggaagt taccgtgaaa   42300
cttatgtaaa cagtaagaaa gataaattaa gctgaggcag tttaggggtt tccgagatgt   42360
ttcttctgcc ccagtgcctt cacgttccct ctcctgtcta cggttcattg ggcttgagag   42420
gatgaaagtt caccttggcc tggaagtggt gagcctgtaa tggcggggag tggatcgggg   42480
tcaggaatgg gccttccaca ggggccactg tacttcacac cacctttctc aactgtccca   42540
ttggttcctc agcccctgca cgtggtgtgt cctgagcagt acactcagcc gcccccagcc   42600
cagtcccaca ggatggacct catgatcgac tgccagcccc ccgccatgtc ctatcggcgg   42660
gctgaggttc tcgccctgcc cttcaaacgt cggtacgaga agatcgagat catgccagag   42720
gtgagctgtt ctccttccta gggttaaact agagctttcc acagaggctc ttggagatcg   42780
tgcaggggtg gccttctttt ggatttatgt caagtataaa tgaaccaggc tgcgcgcagt   42840
agctcacgcc tataatccca gcactttggg cggccaaggt gggcggatca cttgagggca   42900
ggagttcgag accagcctgg ccaacccagc ccagccaata tggcaaaacc ccatctctac   42960
taaaaataca aaaaagtag ccaggtgtgg tggcacgcat ctgtaatccc agctactcgt   43020
gaggctgaag cctgagaatc gcttgaacca ggaggtggag gttgcagtga gccgagatca   43080
caccactgca ctccagcctg ggcaacagag tgagactcca agtatgaatg aacaaagaac   43140
atggaccctt aaccaagtaa ccgggaagag gggggatttt cagggccttc ttgttttttca   43200
actaataaaa taacagctgt tagtcaggac tgctccttac ctagcattca gcagcgtgag   43260
ccctgggcca catcatgggt cagagccctg ggaagtggag atgctgacac ccgctctgtc   43320
```

156

```
cctaaatacc ataggatggt gactttttctc ttccttcctg gacctcagtt atgagtgagt  43380
gtcaagagtt tgctgaattc agaggtagat gggggagata acaggaacca aaaaataagg  43440
attgtaaact tggttatttta tatcctcttg agcatacttg caggttttgg tctatcaaag  43500
tctaagtatt ttataggtct gtgaactctt agcttcagtt ttagcaggga aagagccaaa  43560
gcatgctgtc catgttgaac agctgtggca tgctgcgctt gggccactcc tctgagaggg  43620
agacagagag ggacgcggcc tctcctgaaa gacagcgttg aggatggttg gaggctacct  43680
ctggcttcct ttcacctctt gaggcaactt gaatgtgttt tcaacagaca ggaaaaagaa  43740
atataaaaac ttattgttaa aaccagtgtg cccaaacttc ttttggagtt tgaggttcag  43800
aaatggcctc cagaccttgg gttggaggtc ttggctcctg aatgtgactc atttccatga  43860
gcctggagag gctgctaggg accaccaggt gccatcttta tggttgttta atgtttaata  43920
tgttttttatc attttgttat gatttttttca ctttctctgg attgttttttg tctggtattt  43980
tacaggggct gggattgacg gccttggttt agatttcaac tctctaagcc agcattcctt  44040
aaaccttttg gtctcagaca tccttacaaa tagaactcca aagaggtttt gtttatgtgg  44100
gttatgtcta ttgatgtttg ctatatgaga aattaaaact aagacatttt aaaaatattc  44160
acttaataat acaaacctat tatatgttaa cataactaag ggataaagac aaaagcaaaa  44220
atcagtccca gtgccaggga taaatgttaa gattttgatg tatttgcctt gtctgttcac  44280
tgtgtgtgtg cctactggaa tcacacctca tacactgtcg tcttttttcac ctatcagtaa  44340
gtacattata tcatttaaga tatttcagcc aggcatggta gctcactcct gtaatcctag  44400
cactctggga ggccgaggcg ggtggacaat gaggtcagga gttcaagact agcctggcca  44460
agatggtgaa accccatctc cactaaaaaa aattagctgg gcgtggtgtc acacacctgt  44520
aatcccagct acttggaggc tgtggcagag aattgcttga accgggaggc agaggttgca  44580
gtaagccaag atcatgccac cgcactccta cgtggatgac agagcgagac tctgtctcaa  44640
aaaatatata tttcagctgg gcatggtggc tcatgcctgt aaacccccagc acttcaggag  44700
gctgaggcgg gggtgaatca cttaaggtca cgagttcaag accagcctgg ccaacatgat  44760
gaaaccttgt ctctaataaa aaaaacaaaa attagccaca ggcgtggtgg caggcgcctg  44820
taatcgcagc tactcgggag gctgaggttg cagtgagcca aaatcgcgcc actgcactcc  44880
agcttgggca acatagcgag actccgtctc aagaaaaaaa aaaaagatat ttcaaaagct  44940
tcagctttaa tggttgcata atggtctgtc ataatttaac agttccttttt ttcatagatt  45000
ttttttttttt ttttgagac ggagtctcgc tctgtcaccc aagctggagt gcattggcgc  45060
gatcttggct cactgcaagc tccgcctccc agcttcatgc cattctcctg cctcagcctc  45120
cctagtagct gggaccacag gcacccgcca ccatgcccag ctaattttttt tgtattttta  45180
gtagagacgg ggtttcatcg tgttagccag gatggtctca atctcctgac cttgtgatcc  45240
acccgccttg gcctcccaga gtgctgggat tacaggcgtg agccactgcg cctggcccct  45300
ttttttcacag attttcattt ctggtttttc tgtgttataa ataacacttt taggagcatc  45360
cttttacata aatctttgtc catatatgtt tatttccata agaaaatttt ctgaagttag  45420
aatttctggg tcaaagatta tgaacatccc tttctggctc gaggctatat attgccagct  45480
tgtcctctag aatgagtgtg acagtttata ctcccacagc agagctggag acagctctta  45540
cttctgcctc cttgctaata ttgaatgttg tcctttttta gttattttcc aattttattc  45600
aagtctttttc cagttatata agtatacact gttatctaat tttaaattgt atgtctttt  45660
ttttctttttt ttgagacgga gtctcgctgt gttgcccagg ctgaagtgca gtggtgagat  45720
ctctgctcac tgcaagctcc acctcctgag ttcacgccat tctcctgcct cagcctcccg  45780
agtatctggg actacaggca cctgccacca cacctggata atttattgta ttttttagtag  45840
agacagggtt tcactgtgtt agccaggatg gtcttgatct cctgaccttg tgatctaccc  45900
acctcggcct cccaagtcct gggattacag gcgtgaacca ccgtgcccgg ccctatgtct  45960
ttttttgaga cggagtcttg ccgtgttgcc caggctggag tgtagtggca cagtcttggc  46020
tcactgcaac ctctgcctcc cgggtgcatg cagttctcct ccctaggctc tcgagtagct  46080
gggattatag gcacatgcca ccaatcctag ctaattttttg tattttttggt agagatgggg  46140
```

157

```
tttcaccata ttggccaggc tggtctcaaa ctccagtctg cccaccgtgg cctcccaaag  46200
tgctggaatt acaggcgtga gccaccgcac ccagccaaac tgtacgtctt tgatcattaa  46260
tggaggtaac tgtctcaatc caacttgcta cagtaattgc ctttaaaatg gacattatgg  46320
ccaggcacat tggctcaggc ctgtaatccc agcccttggg aggccaaggc aggaggatca  46380
cttgatgcca ggagttcaag accagcctgg gcaacacagc aagacccccg tatctacaaa  46440
aaaataataa attagccagg cgtggtggtt catgcctgta gtcccagcta ctggggaggc  46500
tgaggaggga acatcacttg agcccaggag gttgaggttg caatgagcta tgatcacacc  46560
accacactcc agcctgggca gcagagtgag gccccatctc aaaaaaaaaa agactccttc  46620
agagtcgtct tggaaatagt gcatggctgc ccagggagag cgcagaacgc catccccaaa  46680
gctcccaccc cagccttgtg cagggaggag gggcctgtgt ggaggaggcc tcaggtgaag  46740
aacgggatct ggcgcacacc ctgctcctcg gcaagggccg cttcacgctc gccataggcc  46800
gttttcttat ttcatgaaac aggcctcacg taccacttgc caatctgctt aagtatccta  46860
agctgcttcc tctgcccgtt tggtattgat cttcatgttt acataatggc ctcttgcatg  46920
tttttgtttt taaataaagg tggcttggct aggtaggggt ctacatgtct taaaaaccat  46980
gcagctaaac ccagcaacag agcacctaat aaggtcaggc tgcacggcag ggcacccatc  47040
aggtgcaggt ggtcggaaag ataccacccc ccaggtaaag ccgtggctcc caccatcagg  47100
agaagtcaga ctttcaggaa gagagagctc cctcaaccgc catgctgctg tccccgtcct  47160
tcctgccact ggtcacctgg agagggatg agggtgaagt aaaggccaga atgaatgaaa  47220
ggctgcactt ggtgtgtcac ctgggcgaca gagcaagact ccatctcaaa aaaaaaaaaa  47280
ttgtttacct ttaaagttat ttcatctttt tagactgcag tgatgtaaat acagattaaa  47340
ggaagagtaa tggtcatcat taaaggcccc cagcctgaac tgcgcccttt gctttcagct  47400
cgcagattca ctggtgccca tggagatcaa gcctggcatc tccttggcaa ctgtctcggc  47460
cgtgctgcac accaaagata acaagcactt gcttcaggta gggggtgctg ggtgggagtg  47520
cagggaccc tctccccagc aagaaaccag accacctaac agattatatt tgaaatagcg  47580
cttcatgtga attcttgttg aagaattatt tccctggcca tgtgcctcag agaggctgct  47640
gtgcccagag atgaggccgc acgtcatccc aagggctgcc acaggcacat tctgttgggg  47700
agcgctgcca cacgaggcag ggctgtgggg agacgtgcag ggtggcaggt gcagccctgc  47760
ccttgggggc tggaaccgga gggcacctgc gtgaggctgt ggctacctga gagcctggtc  47820
ctaccaatga cccacacaca ggtgggtggc acttcagctc cagggcaggc actgtgtctt  47880
aagaattcct ttcagatctg gactgtgtca cctttatgcc acatgtagag ttgctcctag  47940
ctaccactta aagtctatta gaccctgtgc tgggtccttg acccgccttg tcttactgag  48000
ccgtcagaat tcactgctgt catcatttcg taggcagctt ctctaacctt ggccagatgg  48060
tggcaaaggt ggggtttccc cctttggtct gaccccacag ccagtgtgcc cagccacggg  48120
gtcatgatgt acctgcagca cgacacagtg tattctggag aatttactca gcagatactg  48180
aagtgaacca cctgaaaatt taaaaatgga tcttgataga aggcagagat cttagcgaat  48240
aaggtgttgg taggctggac agttgagcat tagagcgcgt ggatctgggg ctcccggcag  48300
ccagggaacc tgaaccgagt gccggctgag gaaaccgggc cggggctctg tggcctgtga  48360
ggacaggata gtctcaggct ctcagtgtgg cctgcggtgg cccctgctgc tcagaggaag  48420
ctcatgaaag ccactctttc cttctgctct agcccctcc tcggcccgcc cagcccacga  48480
gcgggaagaa gagaaagcgg gtgagcgatg acgtaccaga ctgcaaagtc ctgaagcctt  48540
tgttgagcgg ttccatccct gtggagcagt tcgtgcagac cctggagaag gtgagctggt  48600
ttcgctggtg ccgtgaaaac tccacacgtg gcagcctttc cctggctcac tatggccccc  48660
tggctgcagg gagtggatgt tgctgcttgt cacttagtcc ccactgtcct gtggcatctg  48720
tttggtctaa ggtcctgctg ggagacccag gagaaagaaa gcagagtgag gagtgcccca  48780
tccttcctcc cagcacgagg tcaccagaag gcctctccag actgaagaaa aagctgcttc  48840
cacacacaca tgtgacgagt ggggcagggt agtgaggcca ggacaaagag ggacccggcc  48900
ctgccagagt cttgcacttc cacagatgac tccttgctgt cagaggggag ccaagtctcc  48960
agtcgactgt caggatttgc aggaggcagt cgggggaggg gacactggcc cttcccctct  49020
```

158

```
gtctcagcag ccctgatggc tgcttctccc agagatgaga tttcttgact atgattaaaa    49080
gaaaaaaatc taaccttaaa ggttgtaatt ttggcttcag tcacaggact tcagagatga    49140
ctttattagg attatagaat ctttgatagg aagaaggaat tggctaaagg taatactgtt    49200
catgctgctg cttgcaagaa ctgcaacaaa ttacaatcat tacaaggaag gagatttcta    49260
tgaactttct atccaatgta aatatcacag ttgccgactt tcaaatctta aaggctttcc    49320
ctttcctagg attggttttc tccacctgtc tttgattttc ccgtagggaa aaaggctctg    49380
gctgggtggt tgcggctctc ttccaccctc cctgaagacc ttgcagggct cctgggccct    49440
gttaatgggc ctcaagctgg acttttaaaa acttaagatg aggaccttct gcctggccca    49500
gcctatgtcc tgacccagtg ttccatcccg gctcctctct gcagaaggag caagcacctg    49560
tccaagtccc taggggagcc tgcagccatg aagtacaggt ggcctcccca caccgaggcc    49620
cttcacctgc tgtgtgtctg tttcaggcac atgcctcctt tccatgtcac gtctgatttg    49680
taaggaattt ctgtccttag cattagcaat agctgagaag tttgcactgc tgccttctct    49740
ccttcactct tgagagggct ctgccaagtc ccacaggggt atcttggtgt cacctggcat    49800
tttcctggga gctcagacag ctgaaactta ggagggagct gtcaccaggg aacggcatgg    49860
tgcaagcagc tgagcgtccc agactcctga acacagtgct tggacgtgcc ctcaaagaac    49920
tcacaaaagc ttagccaggt tgtggaaatt ctgttgtttt gcatgagctt ttgcatgttt    49980
agggtctctt ttcaagtata agaaactatc actatcatag gcctatgact agtctgaaga    50040
attgtgttga dacgtgtcag tttctagaaa gttcagtcga gtctgtgaag tgtcatttac    50100
agatctcaca gatgtgcagt ctgcccagcc cacctctttc ttttcttctg gagcagcatg    50160
gcttcagtga tattaaggtg gaggacacag ccaagggcca tatcgtcctg ctccaggagg    50220
ctgagacgct catccagatt gaagaagact cgacccatat catctgcgac aatgacgaga    50280
tgctcagagt gcgactgcgg gaccttgtcc tcaaattctt acagaagttc tgagtgggcc    50340
atctgagcta cttccctgaa atcctgcagt ccctcactgg ctgccctcac aagccacctg    50400
aggagtggca tgagaggcca ttaactgtgt ctttgtggtg tcctctggct taaggagtga    50460
agaggtggct cttgagggaa atggtctgga cttattccca gcactgtttc aggcaagaac    50520
tttcccttc aacttcaggc tcattttctt ctcaactctg gctctctcaa ggagctggag    50580
ggtggcagaa gtgggacagg agaagttttc caagaggttc atgggaggcg gaggtgactg    50640
gctggctgtc ttgcatcagt cccaggcctc ggccagggga gccagccttt ggtttcgttt    50700
acttgcctac agtgctgtac gcaataagat gatgatccca aaatatggta aagtgaaccc    50760
atctgtctgc attttctact ctgagcccat ttgttaataa acacttattt ttatataatt    50820
agctgtcctc tgttgaacct accatctata tattgattta gtagctgaaa aaatatgaaa    50880
atatacagaa cagcatgaac ttagaaaaca ccacaggaaa ttgaattttg atgtgtatgt    50940
taaatcatat aatttgcact gtttataaaa acacagatct gtttctcctt acattgcata    51000
agaaggtgct cacctttaag ctgtggctgc acggagagtg atgcaggtcg gtacaccagc    51060
ctcaggctcc acctgcaccg cctctcccac agatcctcag tctctgcatt aaaccgggcg    51120
ttactcacag ataccctcag agccactggt cgtaggaagc tttcagacaa aagtaacctc    51180
acaaagatg actgcttttg aaatgtataa aaccaacagt taccaggtga aatagcacga    51240
gctgtgacac ccaggccaac tttgcgagta ttaagaacaa gtcttagccc tggcaggcga    51300
tgctagatag tatgcccagc gcaggctatt cttaaccatc ttgttggagt gattgattga    51360
ttgaaattca ctcagaagtc agtcctccaa ctcggctgac aactaaacag cacacaggga    51420
tttagtgacc caataaatac ataacatgaa cagctgcaga actgactgct ctggctttat    51480
ggcgcattat cactcctctt ggaacaatcg tattggtggg aatgagtgct tcgctaaagc    51540
agggaaaaga ctacttcatg tttgccatct ccaaccttgc caaacctggg catgggaatg    51600
cttaagtagg tttctaattt tccaaggttt gggtccactc cagtcaaggg ataggctaca    51660
gaataaacga gaggcttcca accatggggc aggactgaca ttacaagaga tgaatgtgcc    51720
atggctatga acatttagtt ttcttttag aattgcaaat agacatccca agcaggcata    51780
cttccaatag aaccttgaa agaatcaagt gaaattaaat tttaaaaaca tctgagggcc    51840
```

159

```
aggcatggtg gctcacacct gtaatcccaa cactttggga ggtcaaggca ggcggatcac  51900
aaggtcagga gttcgagacc agcctggcca acatggtgaa accccgtctc tactaaagat  51960
acaaaaaaaa ttagccgggc atgatggcac acacttgtaa tcccagctac tggtgaggct  52020
gaggcaggag aatcacttga acccggcagg tggaggttgc agtgagccga gatcatgcca  52080
ttgcactcca gcctgggcaa cagagcaaga ctccatatca aaaaaaaaa aaaaaatctg  52140
aaatgcaaaa acagtgtaag ctagagctca ggagaaacca aaaatggtta ttttatttaa  52200
atgtcctagc aatgctatct aggaatgatg ggatctgtca agcctgtctg ccgtgaaagg  52260
gcttgatcag agagcccagt gctggtccct tgaggggggt tgcaaaagaa gtgagcagta  52320
agaacaagcg agtcagtggg tgcccgatga acagggtgca acttagtagg ttttaatcaa  52380
gtcatcacca cccacttagt ggcagaagtc agaggcagga agcagcaaag actcatgctt  52440
tataaaaagc agagagaaaa tccagagccg gcctttccag gtatgagaag agcagttatg  52500
agtaactgcc taaagttcag gtatttggat accatgccag gttggttaga agactccaaa  52560
gaagtggcat aagtggcaga cgtggcctgg ctctatcaga aatgcggccc accgacatta  52620
actgacattg actgacactg acatcaacct ggcgaagact ctgacatcca gaaaagtttg  52680
tactcaaacc cagtggaatc ctaatgatta attgaaaaaa acttaatagt gcagagacct  52740
catattattt aagtcttagt acaaagtgat atattaggta tctattgcac aacaaattac  52800
cccaaaacac ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggcaga  52860
tcacgaagtc aggagatcga gaccatcctg gctaacacgg tgaaacccca tctctactaa  52920
aaatacaaaa aattagccag gtgtggtggg cgcctgtagt cccagctact ccggaagctg  52980
aggcaggaga atggcgtgaa cccaggaggc ggagcttgca gtgagccaag atcgtgccac  53040
tgcactccag cctgggcgac agagcgagac tccgtctcaa aaagaaaaaa aaaaaaaaaa  53100
agaaaacctg acttttctca tctcactgtt tctgtggtcg ggaatctggt gtagtgtggc  53160
ttagctggtc gaccctggct cagggtctcc tctccacacg gctgcagtca gctgttgggt  53220
gagggaacag agcttaagta actttccgca gaaccgccag tgagtggcct ctgccttacc  53280
gcaacaccgt gggtgagtat caggtcagca gccagccagg aaatggcaat ctgtctttta  53340
ggccattgct ttccaagtca catctactcc atctctcctg atccctgaag agcttgaagc  53400
ttttggccct cacagttgtc ctataaaggc atttccaaac tgtaatgaag tatcaacaga  53460
aacaagagtg aagaaacctt taaacctgca taatgacata ttaacaagag tcaagcaacg  53520
agtgggaagg gaaggaggac acttttcctc tggccctgag tccagttttt ttcctgcagc  53580
caagaggagt agttaatgct gtctcactgc tttatgccat ctataagaag gtagacaaca  53640
cttatctttc aaatgcactg cagtgggact acacataaat aacagtagtc ttctttgaac  53700
ctaaaataga gtggaaataa ccaatgacaa ttatggagga agtcacaggt aaatcctgga  53760
gaccagcagt gccaagctga gccacagggc cattctcact gtagacttga gccagcctcc  53820
atcaggaact gatcttctaa agatcaaata ccagagtctc cactgctcct ggcagcccaa  53880
ttatgggttt taatcacatc ataaagcatt atatacatta tggccaggta cagtggctca  53940
cacctctaat cccagcactt tgggaggcca aggtgggtga atcacaaggt cagaagttca  54000
agaccagcct ggccaagatg gtgaaacccc atctctatta aaaatacaaa aattagccag  54060
gcgtggtggc agatgcctgt aatcccagct actcaggagg ctgaggcaga gaaatgctta  54120
aacccgggga ggggcgggg ggatggaggt tgcagtgagc caagatcgca ccactgcact  54180
cccgcctggg agacagagcc agactctgtc tcaaaaaaaa aaacaaaaaa aaaaaccatc  54240
tatctatcta tctatatata tacatgtgca cacacacaca cacatgcaca cgttaaatgt  54300
aaacttttga gacacaggac cacagatctt tgaaaggggt gtaaacgccc atctccttag  54360
gcatgtagaa tatttcttgc ttctcttctg ttggcattgc aggccattga aaaaaatgtg  54420
caaagcccc gtgtaatggt gtttgtgtta gaaggattta ccctttacct ttttctacaa  54480
taaacattcc taacccatgt gtaagcctcc ctgatgtagt tatcaaatca atcaccagta  54540
aaagtaact taattctcct acaataaatt ctgagttacc aaacacatta tcaattaaaa  54600
taagtttgct aacgtttcct taaattatcc aatataagtt tttactctag taactattta  54660
catttgcttc acatactttg gaaataatgg actttcattt cacaaagcct ttcccaatca  54720
```

160

```
tcagtaagca ccttccagtc atcagtgggc attagtcggc agctgctcac atattcggtg   54780
tgttgtgccc tctctcatgg ctttagctca ccgtcacaga taagcatttc tcccagactt   54840
acagctagag aggagcacat ttccaggacc atgagcaccc tgggggcagg gtctgttttt   54900
tccaccttgt cccagcatga ggcttgtgga agaaggtaag gaaagaaaat ttcagaaata   54960
tttaggaatt acaggccaaa acaacatttc ctggtgggtc agttttttaa ctgcaatgtt   55020
ctaaacatgg gaacctgcac ataagtgtaa aaatccctat catttagccc atgctttaaa   55080
atagctactc gattcagtgg gcagcttcct gatgagatga atcagaggtt ggtaactgtg   55140
gccgaaaagc caaatctggc ccacaagcag agttgttaga aaaaagatgc aacagaaatc   55200
acatgtggcc cacaaagcct aaaacactgg ctgacccttt acagaaaaag tatgccaatc   55260
cctgctcaag tgctgtgtgt gggaacattt ctgtagttta ttcaagtaaa ggtcaaataa   55320
tggaatggca atgtaacagc tcccatcaga cctgaccctc ctagaggtaa aactataaac   55380
tccagacgta tgtagttacg taagtaggta gatagaacaa cctaccacaa aaaaacaatt   55440
ccattagaga ttttatcacc cttgtaataa ttattaaaac aactagacaa aaaaaaagtc   55500
atagatgacc tgaacaaaac tgtcaaaaac tttgacttaa ttgatacttt ttagaatact   55560
tgctctgcag cagcagaatg tttactatga aaaccatatg ctaggtgata aatctcatta   55620
catctgaaag gaccgaacgc atacacaaaa ccttctccca ccacaatgga attaaattca   55680
aactcaacga agtattttgg aaaaccacaa atatttagaa attaaacact tctaaaatag   55740
ctcatggatc aaagaagaca tcccaaaatg aattggaaag tattttgaac agaaaattaa   55800
agctcaacat gtacaggata ctgctaaagt agtgcttaaa agtcatctta tacctttaaa   55860
tgcttacaga aaaaatgaaa gacctaaact tgatctaaat ttttacctta gaagactata   55920
aaaagagcca aataaaccca aagaaagtag aggaaagaaa tcataaaaat aagcaaaaca   55980
tgagcaaaac agaacagaga aaactaacaa agccaaaagc tgatttttta aaacatcagc   56040
agaactgata cacacctcat tagactgatc aaggaaagac aggaccgact gcccatatgg   56100
gcagtgaaaa aactttggtt atcactacag atcctacgga tatgaagaag acagccaatc   56160
agaaaggaaa gaggggtatt actaaagagc ctacaaatat taaagggata aaaagaacac   56220
caacttatgc caacagattt accaccacag ataaaatgga aaattccttt tgaagacaca   56280
aatagacaaa gctcattcaa taagaaaaag aacttgatat tcacttaaga aattaaattt   56340
attatcttct cacaaggaaa actccaggcc tagatggttt ccctgggaaa ctatcaaaca   56400
tttaaggaag aaataacacc aatcttgtat aacctctatc aaaaagagga aggggaata   56460
ttccagtccc tttttaagggg ccagcataac tctaatacca aaaccttata aagtcattac   56520
caaaaaagaa aatgagaggt aaatatctct catgaacatc aatgcaaaaa aaaaaaaaaa   56580
aacttaccag caacctgaat ccagcaatac acaaatagga taatatgaca tgaccaagta   56640
gggtttatcc ctggaatgca aggataatta aatatttgaa agccaatcta atttataata   56700
gaatagagga tcatttcaat agatacagga aaaaaagcat ttgatgaaat tctctaacag   56760
cactcagcag acaggaataa aagggaacat actcaacctg ataaaggtta tgtatgaaaa   56820
acttaacagc tcagtgaaat actagagctt ttccccaaat attgagagca aagcaaggtg   56880
ccgatccata ctactgttct atggtgttct cggagtccca gtcattgcaa taaggcaaaa   56940
ttgaagagga aaaggcaggc aggcatacaa acagataaag cataaaggta ggaaagaagt   57000
aaaactgttt tcagatgaga cttttttacat agaaagttct aagaaatcta gaaaactact   57060
ggaataagct cacaagactg caaaatacaa ggttggtatc caaaagtcaa ctgtatttta   57120
tatattaaca agttttttgag agagagtctt actttgtcac ccaggctgaa gtgcagtggc   57180
acagtcatgg ctcactgcag ccttaaactc tcagggtcaa gtgatactcc cacctcagtt   57240
tcctgagtag ctgggatcac aggcacatgc cactgcatcc agctaatttt ttttttcttt   57300
ttactttttat agagacccac cttggcttcc caaagtgctc ggattacagg tgtgaggcac   57360
aacacctggc cagaaataaa atgtttttaa aacagcaact tcattcataa tagtgtgaga   57420
taacttttga aaagatatgt aagatctcta cactaaaagt ctcaaaacct tgctgataaa   57480
aattaacgat ttgaataaat ggagaaatat gccatattga tggattagaa tactcaatac   57540
```

161

```
taacatttta attctgccta ttgatttatg gatttgatgc aataccatcc cagcagacag   57600
ccacaccaca acctaaccca atgttttaag taggtaaagg acttgaataa acatttttcc   57660
aaagatgata cacagatggc caatagcaca taaagagata ttcaacactg gtcattaggg   57720
aaatgaaaat caaacccatg accaggtacc acttcacacc tactaggatg gctgtaccat   57780
tttttttaaat ttttatcaga aagtaagtgt tgggagaagt ggagaaattg gaaccttcat   57840
acgctgctag tggaatgtaa aatgacacag ccgctacgga agacggtttg gcagttcctc   57900
aaaaagttaa atacagaatt accatattgt ccagcaactc cactcctcta tagatacccA   57960
aaagaattga gagcagggac tcaaatattt ggccacctat gttcttagca atattattca   58020
ccaccttagt aaccaaaaga tggatgcaac ccaagtatcc accaacagat aaacagataa   58080
aacaaaatgt ggaacataca cacaatgaaa tattatccac tcatagaaaa gaatgagatt   58140
ctgatacatg ctgcaacggg tgaaccttga aaacatgcta agtgaaataa gccagacaca   58200
aaagaccaca tattttatga tttcatttat attcaaatat ccagaataga tgaatccata   58260
gagagagaat agaggttatc agaggctgga agtagtgggg gaatgggaag ttactgttta   58320
atgagtacag aatttgttcg caatgaaaca gttttgtaac tagctagtgg tgagggttac   58380
acaacattgt gaatatactt aatggaacta aattgtacac ttcaaaatgg ctaacatggc   58440
aaattttatg tttaaatttt tttaatctga taatgccagg tttcttagaa gagactgggc   58500
agtattgaga tgaattttat gtaagcataa gagctaatgt acaaaaatca caagcattct   58560
tatacaccaa taacagagag ccaaatgatg agttgaatgc tcattcacaa ttgcttcaaa   58620
gagaataaaa tacctaggaa tccaacttac aagggacgtg aaggacctct tcaaggagaa   58680
ctacaaacca ctgctcaatg aaataaaaga ggatacaaac aaatggaaga acattccatg   58740
ctcatgggta ggaagaatca atatcatgaa aatggccata ctgcccaagg taatttatag   58800
attcaatgcc atccccatca agctaccaat gactttcttc acagaattgg aaaaaactac   58860
tttaaagttc atatggaacc aaaaaagagc ccacattgcc aagtcaatcc taagccaaaa   58920
gaacaaagct ggaggcatca cgctacctga cttcaaacta tactacaagg ctacagtaac   58980
caaaacagca tggtactggt accaaaacag agatatagac caatggaaca gaacagagcc   59040
ctcagaaata acaccgcata tctacaacta tctgatcttt gacaaacctg agaaaaacaa   59100
gcaatgggga aaggattccc tatttaataa atggtgctgg gaaaactggc tagccacatg   59160
tagaaagctg aaactggatc ccttccttac accttataca aaaattaatt caagatggat   59220
taaagactta aacgttagac ctaaaaccat aaaaaccta gaagaaaacc taggcattac   59280
ccttcaggac ataggcatgg gcaaggactt catgtctaaa acaccaaaag caatggcaac   59340
aaaagccaaa attgacaaat gggatctaat taaactaaag agcttctgca cagcaaaaga   59400
aactaccatc agagtgaaca ggcaacctac aaaatgggag aaaattttcg caacctactc   59460
atctgacaaa gggctaatat ccagaatcta caatgaactc aaacaaattt acaagaaaaa   59520
aacaacccca tcaaaaagtg ggccaaggac gtgaacagac acttctcaaa agaagacatt   59580
tatgcagcca aaaaacacat gaaaaaatgc tcaccatcac tggccatcag agaaatgcaa   59640
atgaaaacta caatgagata ccatctcaca ccagttagaa tggcaatcat taaaaagtca   59700
ggaaacaaca ggtgctggag aggatgtgca gaaataggaa cacttttac actgttggtg   59760
ggactgtaaa ctagttcaac cattgtggaa atcagtgtgg tgattcctca gggatctaga   59820
actagaaata ccatttgacc cagccatccc attactgggt atatacccaa aggactataa   59880
atcatgctgc tataaggaca catgcacacg tatgtttatt ccggcactat tcacaatagc   59940
aaagacttgg aaccaaccca aatgtccaac aatgatagac tggattaaga aaatgtggca   60000
catatacacc atggaatact atgcagccat aaaaaatgat gaattcatgt cctttgtagg   60060
gacatggatg agattggaaa tcatcattct cagtaaacta tcgcaagaac aaaaaaccaa   60120
acaccgcata ttctcactca taggtgggaa ttgaacaatg agaacatatg gacacaggaa   60180
ggggaacatc acactctggg actgttgtgg ggttggggga gggggaggg atatcattag   60240
gagatatacc taatgctaaa tgacgagtta atgggtgcag cacaccagca tggcacatgt   60300
atacatatgt aactaacctg cacattgtgc acatgtaccc taaaacttaa agtaaaaaaa   60360
aggaatatat tatgaaatta taaaattgaa aagaaaagga gctaatgcca tagaactaat   60420
```

162

```
tctaaaattt acagagaaat acaaagtaac tataatattg aaagcaatct tggagatgaa  60480
caaagttgga aagctgcatt catcaagacc gtatggaact ggcacgagga tgaacaaagc  60540
agcataacaa caaagatggt tcagaaacag agccccactt ctataatgac caccttttca  60600
acaaagggaa gggaaagtct ttttaacaaa tggtgctgca atgcccatat agaagaagta  60660
tcagaaacct gaccactgcc acacaccata aacactgaga tggatcttta attataagag  60720
ctaataccat aaagcatttg gtgaaaaaca ctgaaaatat cttcatgatg ttgggtaggc  60780
acaggtttct tgggtcacag aaagtagtaa caagagaatt gtatctcctc aaaattgaaa  60840
acttctgcta atcagacgac accatacaga aaatgattag gcaagccaca aattaaaaaa  60900
ataatttaca aaacatatct gacaatggac tagtgtccag cgcaaaaaat tcctgtaact  60960
cagcaataaa aaagactaaa tacatccata cgatactatt cattgagaaa agaaactggt  61020
tatcaaaccg ggaaaaagat acaaaagaac cttaagtgca tattatatta catgaaagca  61080
gccaatgtga aaaggctaca tgctgtatga ttttatgtga cattctggaa aaggccatag  61140
tgtgaaaaca gtaaaaagat cagtggttgc cagagattca gagagggagg gagggaccaa  61200
taggtgcagc acaggaagtt tttaggggag tgagactgtt ctgtgtgaga ctgtaatggt  61260
gaatatatat cattacatat ttgtcaaaac ccatagaaca tacaacacaa tgaatgaagc  61320
ctaatgtaaa cccatgggct tgagtgaata atgtgtcaac actggctcat caattgtatc  61380
aaatctatca cactaatggc agatgttaat aaaggacaag tgaggggtga ggtggaagaa  61440
gaagtctctt tgtacttctc atgcagtttt gctgtaaatc tgaaactgct ccccccgaaa  61500
tctattaaaa atgtaggaag aaaagaaagc aattcaaaaa aggacaatcc agtttttctt  61560
aatgggcaaa agatgtgtac agataattca caaaggaaat atatataaat ggcgtaaaca  61620
catgaaaagg tgcttaaatc accagtcatc aggaaaacgc agaatgaaat aagacaccat  61680
tactcaccag aatggctaaa attaaaaaga ctgaccagac catggatcag tgaggatgtg  61740
gaactgggag tctcataatt actggtggaa gtacacaatg gaatgatcgc attgagaaaa  61800
ggtctagaag tttcttacaa aactaaacat gtatacatct accatattac ccaacaattc  61860
cactcctagg tatttaccca agagaaataa aaatccacag aaagacttgc acatgaatgt  61920
tcacagaaac tttattcata atatccaaaa actggaaaaa gccccagtac ctatataata  61980
gaacggacag attttactca attcatacaa gggaatacta agcaataaaa agtaactaat  62040
caccaatcta ttcagcaacg atggatgcat ctccaaaacg ttatgctggg tgtgtagaag  62100
acggacacac acaagagtag aaattatagg acaccattta tatgaaattc tagaatatgg  62160
aaaactaatc caaaatgaaa aaaccatca gcattggcta tgtctgagga tggaggacgt  62220
ggggactgac taggaggaag gagcaggagg ggactttctg ggttgatagt agtgttccat  62280
atattgagag gggtctgggt tacacaggtg tgtgcatttg tcagaactca aaagaatgca  62340
cactgaagat gtgtgcatta cagtgtgcac gtttaaaata aagtttacat taaaaacaca  62400
aacattgacc tataatgaac agttgtatgc ccatgtattt agaaggaaat gcattgatgt  62460
tgccagttta ctcagaaatg tacctcaaca gtgcaccatg aaaggatgaa tggcaggatg  62520
ggtgaaggga cggggcatgg gtagatggga cgctccaagg cgggtccagt aaaatgacat  62580
agacatttat gccctagaaa tgatttcaac attgccgtat gtttgaaatg tgggaccagt  62640
cgtttaaatc aatagaatgt aagtagtttc aatgctaaca tgacagtcct acaacaggac  62700
cagcagctgt actttttttt tattttatg agacggagtt tcttgttgcc caggctagag  62760
tgcaatggcg caaatcacag ctcactgcaa cctccgcctc ctgggttcaa gcaattctcc  62820
tgcctcagcc tcctgagtag ctgggattac aggcacgtgc caccacacct ggctaatttt  62880
tgtattttta gtagagaagg ggtttcgcca ttttggccag gctggtctca aactcctgac  62940
ctcaggtgat ccacccgcct tggcctcccc aggtgctggg attacaggcg tgaaccaccg  63000
cacccagcct gtactctttc ataaacgtca agacagatga agaaaggtaa aacaatttgc  63060
ctaagctgtg atttctaagt gaccctcttc actttgtcaa agcattcatt catgagaaaa  63120
ctatggaact cctgtgttct tgagaggctg cagtccggtg tgggaggcag agcagtggcc  63180
agcacacagc atggtgaggc gacagagcgt gggggctcta ataggaggtg agcagggcac  63240
```

163

```
tcagccaggc gctggcgctc aaacctagtg gaaggcagaa agagccatga agaagtggac  63300
actattttac tccagtaata gttcattttt attgtgtcaa acagtggact ctacgtatat  63360
tatattattt aacttttaac atatgcttaa gagatgggca caacttttgc caccgtatgg  63420
tgggattaga gcctaaaata gtaatagata acttgctctc caccagtgtg atgggcagcc  63480
caagatctgc acccagtctg ttccagggcc cagaccttta cccactacat tctcctttct  63540
tcttttcagt atcttcataa cattctaatt tttttgtaga gatgggggtc ttgctatgtt  63600
gcccagactg gtcttgaact ggcctcatgt gatcctccca cttctgcctc accaaatgct  63660
gagattaaga tgttaggcac cacacaccac catcaacatt cttcttaaca catttttgta  63720
aaccttgtgg agccttccac ttcagtgatg atcccatcaa cagctaacat ttaccacctt  63780
ggcagaccgt aagtccaaga cacaactcga caggtataga ctcaaagcag acatcatatc  63840
tctgtgtata ggaagacaca ttttctacag cctcatgcca ccttctcaag tctctctggt  63900
cccaggacaa tcgtaacatg gagatggatg gctggaagaa caggagcttg acagccaaaa  63960
ctccagaccc aaagaggaat gcccctcgat gacatctcac ccatcagctg ctgcaaactt  64020
gcctgatcag tcgtgaaccc cacttgagga gggacaccaa ctgttaagtc tcacccattc  64080
ttaggactgt cagtgtgacc aaagctgcca cctgcagagc ccaggagagg agtcctcgcc  64140
tttacccect ttcccatctc catccttctc cccgaagccc acagctcagt gccctctcct  64200
gaggaagcct ctgatcccac agccaagcac aagatctagg cctgtgggca ccaacaggat  64260
ggggctctgc agtcagggag cgtcagctcg gtgcaggtac aggtgcctta gtgacctata  64320
ggtcaggggc atgacctatg gaccgaatcg agccattcac agtgaggcct cacctgtcct  64380
gggatcgcag gcacacacag ctccccacaa ccactacaca cacacacaca cacacacaca  64440
cacgcatttt aaattcccat gaaaaaatta actttgcata tatgggccac atgcccttcc  64500
acatcctgct taaagcacct caacagcccc taagttcctg ttttgtcaaa atgacttgcc  64560
ctggaaccgg gcacaggcaa ggctgcccat gtgagtgtga gtctgttcac ccatctctgg  64620
tccacagccc acaccagggc ctggtcaggc tgcctcccat cgtcttctgc gagcaggccc  64680
agctggcata cacaggtggc gacctggaat caagcaatca agcaggtgcc ttctctcagg  64740
tcactcttcc atacttgctg aggaaaacca caaagacct ccaagctgct tgagttaaag  64800
tctccattta ttttattttt tttacaaaaa tccaatgtaa gaccattgtg ctcgtgacga  64860
aaaggggtgg ggtggatgga cgtggcatgg atatcaaagc ttcccccac aaactaggag  64920
ctccccactc tgtccggcgc agctcccaga aagatcccat ccttccggac aggaccccag  64980
ctggtgagcc ctggcctgag gcacagtcca cacggaggag cactgcccag ggagccagcg  65040
ctcacagtgg cctgcagagc cctgggacgg tgttatggta agacagccca aaccggagca  65100
gcaagccggc cacccagaga acgaggcgct cctgcaccct gcgagccagg acaaggtggc  65160
caggggcggc ccacagacag ccaaggagac ccggggtctg tggcgccgct ttcccatctc  65220
aagcgagtca caggtcggcg gctttcccgt ggtgagaagc acctgaccag tgacactgtg  65280
gccaccttgc tgcctctcgc tgaggagggc gtgcccctca gagcctgtct gcagtccttc  65340
aagccagtgt tcctttcagg gtcaaggagg gctgtccttg ttggaagcac cggcaccaca  65400
gccctccctg cggcatgttt tggtgtcaga ccactcagcc cttcttagat ccaccagtga  65460
cattcggggc ccgacaacct ggctccacta aagggagagg ccctggctcc accacacaga  65520
cggccccagc tcactgagtc ccgctaaagg gggtcccacc acacagacgg ccccggctca  65580
ccgagtccca ctgaagtcag tatgtgagtt cctcacatta aaagaaacca gatgaaatag  65640
cagccacaat atagcgccac acaccacact ctttggctcc ccgagggaag aaggctactg  65700
ctaaaaggaa tacaagtcag gagtcaggta gagggcaact agaaagttct gaggaagggc  65760
gtctgacccc cactgctggg aacataacca cactgcctca gcaggggagc tacaggctga  65820
tgctgggggtt ggggcggggg aacctttgga aacacagtcc tggcggcggc cgggtccggt  65880
ttgccaatgg ggagagttcc cttaagccga gctagcccta caggtgggtg ggagctacac  65940
aaaagagccc agcttcaaaa cagtacttga agaggaccca cgtggtacag gcaggtcaga  66000
ggagaacgta ttccaagaaa tagaagcaca ggatgccaag gtctagggaa gacggaactg  66060
gcttaaggca tgtgcatgac caggacaaac ctgagctttt gttcagttgc tagaaaactt  66120
```

164

```
ccagagtcaa ctccacttcc agaaagtagg gttcaagaaa cacgtcatgg gctaaatccc   66180
tgacaaatgc cactcacacc ctcctaggtt cccctactgc caccatgacc caaaaaatta   66240
gcttatttca gtttcagccc agggaacaga atcctaagca gggagtggaa agtggtaact   66300
cgggttgtga atgcccgtta gattccaagg ctggatgtga gcttacacag caaatcacag   66360
cctcccattg ttctagcaca taccaaacct cggggagtcc tacagccaag ctgacattag   66420
gggtccaaaa accacagata acacaggatg gggctccaga cagaggcggg gggaaggtga   66480
atttcaccaa ggaattatcc caaggcaggc gccttgctgt aaaacttccc ggccagccgg   66540
gtgggttcct cgaaggacac tggcttgctc tacactaggg agaggaggct gacctgcaaa   66600
ccacttcaga ccacagcaga tgtgcacgct gctgatctcc tgtccaatcc aagaaagagc   66660
acttcagaaa cgcctgaggc ccacagcacg tgtgtttcaa cagaagagca ggatagaaag   66720
agccatctgg gagtggcgtc ttcagcccct attctttctc actctttgct tcctcattct   66780
ctctcaaaca agagagaaat gggagagcag ggataagtac ggaggcaagc ctggcctaaa   66840
gataaatcct caaaaatcgc tggccccagc agcaggaagc tgaacagccc accagggtca   66900
ggcgctccca gggattcact gggaagagaa tgtgagttac aggttgctga ctggcaacag   66960
aaagggtaag gaagagacct tgtccaggcc cgcaagaggg ccaagttcat ccctttctgg   67020
ttgctgcaca cagatggcgc tggggaggat gggagatgat ctttaaggat aagccagtga   67080
cacaaggcca ggacccatct ccgccagaat acagaacaaa ggagcctgcg cggtccctcc   67140
cttagaaagg caaaactcac actcccccag ccaaaaatat atatgtatgc aagtgtgtgc   67200
atgtatttat atacacacac atatatataa ataagccttg aatggcaaat ctgaaacttt   67260
ctcttttaa ataatcataa tagttgttat tgaatgtaaa aaccacgaac cagctgtcct   67320
gggcgtacga acggtgtgag tgactctgca gagtcgccac agtcctcagt gtaagctatc   67380
agtcagtgcc ctgtgtgggg aaccccgggg actccgccca gggctccagg cccagtgtgg   67440
ctgacttcaa gataaaggca gcggtttcct tccactcctc ctgctgcccc ttccagcaga   67500
ggctctgggc cacccaccag cagatgtgcc caaggtcctg caatgcctag gaaccttggg   67560
agccatcttc ctccctctgc tcatcctctt ccccagaccg tgcgctgccc ctagatgaac   67620
ttgaagcact tggtcttgtc atggggcagg cgtgtcttga agagcacaga atccaccctg   67680
aactgcgtgt acaggagggg catgtagccg tacaccttca cgaagaagtt gatgcacttg   67740
tgccgctcgt ggaagtggga gtcatcatga gacagggcct gagggcatcc tgggcatcgg   67800
aatgtccacc gtgaggtcac ctggaaacgg gagagagaga cagagtggga atcccagcta   67860
atactgacag aacccttgca gctgagccga tcccacactc ccatgtccat ggtgaagacg   67920
ctgatcccct caggggcaac atccctgcag agcatggcag gaaccagagc ccggccccag   67980
gcctcctgcc taccagatgt ctccagaaca ttgtcaggta ttctgttgag atggcctacg   68040
cttctcagat gccaaaagcc ttaacgtgtg tagtgtcagc tgtctcagta agtctactcc   68100
tagtatgtac ttggttgcag agccataggt aggtaccgag ttgtttgttt catcaatgtt   68160
ttgaatcaaa atattgaaga ctacccaaag aggggctttg ggtattgaag actacccaaa   68220
gaggggctag tcaaagaggg gctatcattc ttgaatactg tccataaaaa agatgcttaa   68280
ctacatttaa agccatggga aagtggccat actacagtct agtcatatta ttattaatta   68340
gaaaatgtct aactaaaaaa gtatgaagag ggacagcttc attacaatgt ggcaggccga   68400
atggcataaa aacccctcag aacacctgaa catgcaagaa gaaatacata aaccatctct   68460
ttaaatacag ggcagagcct gtaataagaa atgaaattac ctggtgatta attccagcac   68520
tttgggaggc caaggcagga agatcgcttg agcccaggag tacaaaacca gcctgggcaa   68580
caaagcaaaa cctcatctcc acaagagata aaaatattag ctgcgtgtgg cagcaggcca   68640
gctatctggt gtagtcccag ctacttggga ggctgagatg ggaggctgct tgagcccacg   68700
agtttgaggc tgcaatgagc tatgatggta ccactgcact ccagcctggg tgacagtgag   68760
accctgtcac tcactcacat acatacatgc atgcatgaat aaacaatgaa taatgaatga   68820
atgaatgaat gaatgaatga atgaaatcct cagaggccaa acaatgaaaa agcaaatcct   68880
gcaagatagc catgaacttg ggttttaaat gggctggaga agtgacacct gcaaagcggg   68940
```

165

```
ctgggggcct ttggaaacac tggctccatg gaggggagca gggaggggtg gacgcctcac  69000
aaagaaagat ggggaagaag tgtctttaaa tttatcttct acttcctttt cttttcacct  69060
aagtctgatc ttttttatccc atttccactga aatttaataa ctatgattct cattttcaat  69120
agttccattt agggctttcc aatctgtttg ttcttttttgg agtgatttgt tgctttttta  69180
tgttttcagg ttactaattt taagcctact tgttttatag tctatctaat ggctttatta  69240
tttgaaatcc ttggagaact ataacctgtt tgttatatgt gttcactcct gctcatgatc  69300
agctgttttc ttggtggctg actgttgact ttacatttca agctcatctt caatgaggct  69360
ttacctgtgc gtgtcctatg tgacctgagg tgaagaaatt tctcttttc ttaagtggga  69420
acttcctctg ctgagagtaa tttctcctta taacagattt ttggttttat tttgtcaaac  69480
agtccaaggg tatcgacgac tgggtctagt tttctttttt gttttttccc tggggactcc  69540
ccatattgcc caggctggtc tggaactcct ggcctcaaga aatcctcctg cctcagcctc  69600
tcaacatgtt gggattacag acttgagcca tctcatgtgg ccctgggtct agatttcata  69660
cagaatgagt ccctaagccc atggaggctc aaaagactat ttaacattct caacctacac  69720
ttccccaaca acctgtcaga gtcaaggtta aaataaacaa ggtatgtgtc atctccccgg  69780
ggcaacgggt aggagatctc cattctaatt ctccacccctt aacaggctct acactccttc  69840
acatgagtga taaaatccaa gcctctagac aactaaggtg agagcagccc cccatggtgg  69900
cctcagtgat gccaccacgc ttgccaccct aagttttagt cctcccacct gcttcctttc  69960
tggcaattct cttacctttt tattagctca actatacact gaaaaaataa gtttgttact  70020
tatagtgatc aggttttcaa actacctaat ccactatagt acaaaaccca aaaatttact  70080
gtcaagtttt tttttttttt tgagacagtc tcactctgtc tcccaggctg gagtgcagtg  70140
cggtgatctc ggctcactac gaactccgcc tcccaggttt atgccattct cctgcctcag  70200
cctcccgagt agctgggact acaggcgcct gccaccacac ctggctaatt ttttgtattt  70260
ttagtagaga ttggtttttgc tgtgttagcc aggatggtct cgatctcctg acctcgtgat  70320
ctgcccgcct cagcctcccc aagtgttggg attacaggca tgagccacag cgcccagcct  70380
actgtcaagt ttttaaaaag cagactgcaa atcaagtata taaatttaaa atataaaaat  70440
aaggccagat gtggtggttc ccacctgtaa tcccagcact ttgggaggcc aaggtgggcg  70500
gatcacttga gctcagtttg aggccagcct ggccaacatg gcaagaccct gtttctacta  70560
aaaatacaaa aaaattagct gggcatggcg acacatgcct gtaatcccag ctgctgtgga  70620
ggcttaagca ggaaaatcac ttgaacccgg gaggcagagg ttgcagtgac ctgagatcgt  70680
gccactgcac tgcagcctgg gtgacagagc gaggctccat ctcaaaaaaa aaaaaaaaaa  70740
agaaaaagaa aaaatacata tatacgtatt tttacacaca tatgtgtata tatatatgta  70800
tgtataaata aataagtcac cacgatagac aggataccag agaaccaaaa gaaataagcc  70860
aaaagttttg gtacttttga tttctttctg catgtctatc ttttctcaaa taatttttaa  70920
atttccatta taaattaagg ggaaattttt taattgaaag acacatccca taacttaata  70980
gtggaagagt aatcattgtg tacagccagt atgcgccgtc agagcccagg tcccagagtt  71040
taaactggga ggagacacag gccagtgctc aaagggtggc tcccctcaga accgagtctc  71100
tggacagtca tgacctccac aggtcccct ccagggtccc acctgtctcc tcacttctcc  71160
cctcactcac tgctgctctc ttagaaccct tcggggtcac gtcagcactg agttattgct  71220
cttccacggt tcccactgga gcaggatgta ggggtcagga atctggggaa ggatgttctc  71280
aaacagcatc tatgtccagt attccatggg gctctcactg gatctaaaaa cctttctcat  71340
cattccagac accagaatcc aacccccagga gaaatgccct ttaacctgca cattattcca  71400
tgtgacacaa aaggtgactt tataactgtt gttttcacgg aagcagtggt ttccaaatgt  71460
ttttaatcat gtaatccatc agtaaaaaaa acatttaagc tgggtgcggt ggctcacacc  71520
tgtaatccca gcactttggg aggccaaggc gggcagatca cgaggtcaag agatcgagac  71580
cagcctggcc aacatggtga aaccccttct ctactaaaaa tataaaaatt agcggggcgt  71640
ggtggcacac gcctatagtc ccagctactc agaagactga ggcaggaaaa tcgcttgaac  71700
ccgggaggca gaggttgcag tgagccgaga ttgcaccact gcactccagc ctagcaaaag  71760
agcgagactc catctcaaaa aaagaaacaa aaaaccattt aagactgcat ccccaatata  71820
```

166

```
tttgtaaata tataactgtg ttacataata aaacatgcaa aaaatttaaa aagaatgaag  71880
caactataat attaactgaa gtctggacat ttacttattt aaccaatatc gtggatcaca  71940
gtttacatgg aagattccag gtaactcaat ctaagaaaaa tattcgtttt atgcttagta  72000
acaatgagga aaatccttga tagctgccaa gaacctatat caccccagag aaccaagacg  72060
ttcacttgca tttcggcttc cttaccacct aagccatctg ttttctcaaa actttacagg  72120
tgacttttca atctcttatc ctgaatgaag cctatttata ttctgtgttc tccttgcaaa  72180
agtagtacat tattcaaaga aataatatga cattaactcc ccattcgtta gtcaatatta  72240
agatattaac attattgaaa gaacactgcc aatcatacga agcagtcaaa cctccctaac  72300
tcaaacaagg aatagtttga cagtaaaaat ttgaggtatt taaagcacaa caaaaaaatt  72360
actatttttg aacataaaat agtacatata cctgatacca ttaaaattag gtaaataaaa  72420
tatttaattc aaactggttc tttattatga agtaaataat tagattcata agttgaagga  72480
attactaaga gttagaaaac actcttaatt tcagcctttg aatttgaaaa gtcatcccaa  72540
tcttgaattc ttcatatatt ccagaaagat gaagaaaatt cacagagaat actcagtttt  72600
gaagttttca cttggtaaga atcatgtgca ccatgtctaa attacttcca cctgcactga  72660
agagatggct taactaatga aacactggcc taataatgca gtagacaaac acactttaac  72720
aaagatgaaa aattccccat gtctgtgcct gctcaggtaa ctgatgctat tattaggtac  72780
ctaatcactc agatacttta aattttcatg gaccatgtct tctggtctac tagagaggca  72840
taaattgatg catacatctt gactcaagtc cagtccctgg ctacataaga aaggatatat  72900
aaggaagaga aaattgcacc catcattaat tgctttctaa aacctttgcc tccctacctc  72960
aaagtctaca aaatcttttc actgtttaat atgagaccta ccactgtacc tggaaaacat  73020
actgtttta tataaatact tgtgactatt tttcacaatt taaaaaaatt gatacattat  73080
gttgctaatt attcttctct tgtgaggctt tagcagaagt ctcggcaaca gatgaaaccc  73140
tgggacaatc aggagtgaca tcctacgcag gggccacagt tggcctccac atgcatttct  73200
ttgttatgct ttgctgcatg gaaccagcgt cctctggtgg ccaccctgct tagcactcaa  73260
gctacgactt ctttctcact acaatgccca ggctggagtg cagtggctat tcacagacac  73320
gcccatggca cattcagcct tgaactcctg gattcaagca atcctcctgg ctcagcctcc  73380
tgagtagctg agactaccag gcatgtgcca ctacacccag cttctaaaga tgatttcatt  73440
atcgttatta gtacatgctg gtgggtactt agtctagaac acaattatta ttattattat  73500
tttctttttg agacggagtc tcactcagtc acccaggctg gagtgcactg gcatgatctc  73560
agctcactgc aatctctgcc tcctggattc aagcgattct cctgcctcag cctgctgagt  73620
agctgggatt acaggcgcat gctactgtgt gtgcgtgtgt gtgtattttt ttttttttt  73680
gagatggagt ctcgctctgt cacccaggct ggagtgcagt ggcgcgatct tggcttactg  73740
caacctccgc ctccaggttc aagtgattct cctgccttgg cctcctgagt agctgagact  73800
acaggtgcgt gccaccacgc ctggctaatt ttttatattt ttagtagaga caaggtttca  73860
ccgtgttagc caggatggtc ttgagctcct gaccttgtga tccacctgcc tcagccttcc  73920
aaagtgctgg gattataggc gtaagccact gcgcccagcc taatttgtat attttttagt  73980
agagtcgggg tttcaccatg ttggccaggc tggtcacgaa ctcctgacct caagtgatcc  74040
gcctgcctca gcctccaaaa gtgctgggat tacaggcatg agccaccgca cccagtcgaa  74100
cacaactatt tactcatggc aatgtcaccc atgaaggtaa acctatttca taaaattaaa  74160
taatatgcct ttttgataat aatgaaaata agacctcatt agtttgttga cccttctaag  74220
gacatcaggt ataaatctct tactggaatt tagcattttc ttcaattatg aaacagacaa  74280
acacagacga agcacagtca caaatattca tttggagtga cagattctat agcattattg  74340
gttctaataa catctgcttc tgtgaggact gagctatcct aacccttacc agcatgctct  74400
aacttgctga cagagcccac aaagatgaca ggaagggggt ggaaccaggc tttctgtgca  74460
ctgagtgtat gtgttaatac ctccaagaaa aaaacacaac aataccctca gaacttctag  74520
aattctgagg gtattttttgg ttgtgagcaa ataatttata tagtacttat gtgccaggca  74580
ctattcttag agctttacat atattaactc agaaattctt aagttttttg tttgatggac  74640
```

167

```
atcgcctgtg cctctggctt ggcaatctgg tcaagactgt agactcctca aagtaatgtt  74700
tttaggtata taaactacaa tacacaggat gacaaaggaa acgagttaca gtaaaacaca  74760
gtgacataca tgctctttc ttaatgtatt aaatcacaac atctagggga aagggagtaa  74820
ctgccgtgaa ttcaaagcag taacaaatac aaacaatact ttttgcagat attgcaataa  74880
aggtattgtg atatgaagat atcagtgatt tctactggtg acaaatcagt tactacaaat  74940
actcttatga attatagcct gtttcataac tgaagaaaat gctttattcc agtaagacat  75000
taataaaaat aatgatgcaa catctttccc acccaagttc caaaccttct gatttctatc  75060
cattgccctt aggaatgaag ggcccctgta gtaacaactc atttaagctc acagacaatc  75120
ctttgatgag gtaggtagta tcatccctat tgtacaaatg aggactctga ggtacagtgc  75180
agttacgtgc tgcactactg caaaacaagt gaagtaaaca tgcacgcatc cacagcccca  75240
ccagtggtgg gacctcacct tgatggggg cttccgagtg atgtgggaga caaggaagtt  75300
catggcaatg tcctcacagt tgatgtattc atccaccatg tcccggatgg cctggggcat  75360
cacataagaa tacaggtagg cataatactg tcaggggaag aaaaagaacc acatgctgtg  75420
ttacaagaca caggttgttg gctttcagcc aaaatatgca tggatggagg ggctgtttgg  75480
gtgtggcagt aactaggagg tattactggc acttagggac tggggcaggg gattcgagac  75540
atcctgtcgt gtggatcttc tgcagtgagg aattatccca ttcaaactgc catcatcacc  75600
ccctttagta acagaatgtc atatcatctc cctggtaccg cagtgatttt gaaatcaata  75660
caaagatttg tcaaactagg tcagatgctg gttcaattga acactatttt atctctaaca  75720
atggccaaaa aaaaaaaaaa agataagtga gagaaaaaag cctggttatt ttctcagacc  75780
tcaataaatc acagaaccat gaaacacacg atccctcact gcctcctgta cagattcttg  75840
agtctggtca gtactcgcca tcggccctgg ctactccctg ctgccaacca ccttcgtctc  75900
ttgcctggat tctccacatc agctcctaaa tattctccct gctgccatat tctcttcccc  75960
atgtgctagt cccagcgcag caggtgattg tgttaacact caaaccaact gaacatatca  76020
cccttcgct ccaaagcctc caacacttcc catctcactc agagtaaaag gcaaagttct  76080
cagactgtcc tacaaggccc acagagggt gtgttggagc cactcacacc tgctcatgaa  76140
tggcgctttc tacatttca gaatgttgtc agcttgttgt taaacatagc cattattaaa  76200
gatgtaatta cataaacttc aaattaaata aattaaaatt atattaaaaa tccatgcaat  76260
aaacaccta aactcattac ttcctagtta atattttact attaacttga ggttacctat  76320
atctactgtt gatgttgaaa ttactatgta atggtgtaca actgtgtatc tcttcccaaa  76380
tccgtgttca gtgactcatg ttgataactt caaatcagcc aaggtaagag tatttatacc  76440
atagaaatca gcaaatacta caagacaggg cacatgttaa ctgctatatg ttgcaatttg  76500
ctgtaatgaa caaatgaata ggtgaggtgc ccagttaaac tgattaactg atgaacatat  76560
tgcattacct acaatataat atgttgagtg aaataatgat aaaattttt tgtaacacag  76620
aataaatgtg ctaattatct tatagcaaag tacttaagag ttggtgaact taaaaaaatg  76680
aattgtaatt tttttttaa caaaaaggtg atccaggctg ggcatggtgg ctcatgcctg  76740
taatcccaac actttgtttg ggaggccaag gtcggtgaaa tgcttgagcc cagaagttca  76800
aggccagcct gggcaacaca gggagaagac cccatagcta caaaaaaata aaaaattggc  76860
cagatgtagt ggcatgtgcc tgtactgcct gctactcagg aggctgaggt gagaagatca  76920
cttgagcctg ggagttctag gctgcactga gccatggttg tgccactgca atccagcctg  76980
ggtgacagtg agattctgtc tcaaaaaaaa agagtaagaa taaataaaat aaaataaata  77040
cacttttaa aaaggtaat tcaaatttat tgacccttta aatggccagt gactgtcctt  77100
cgtatgctga tgagaatata ttaacataac acgtcttgaa agaaatgaca ttttaacaat  77160
aagaactgcc ttttaataat aatttaaaaa aaactgatga aagcattatc agaataactg  77220
ttcagaggta tttccatcag tatgtggttt tgctgtcaaa aatgatttat gttgaccagg  77280
cgcagtggct cacgcctata atcccagcat tttgggaggc caaggcgggt ggatcacttg  77340
aggtcaggag ttcgagacca gcctggccaa caggtgaat cccagctact ggggaggctg  77400
aggcagaaga attgcttgaa cccaggaggc agagactgca gtgagccaag attgcactac  77460
tgtactccag cctggagaaa gaagcgagaa gactccatct caaaaagaag agaaaaaaaa  77520
```

168

```
aagtttaatt tagaaacaga cctgacttgc tataacacac agtatccaat caagattttc 77580
aaaaataata aaacatattc aatcctactg cttttcactaa aatttaagaa ttgagtgatc 77640
acattatttt aaagttttgt ttcatcgtta tttcaacctc taaaaaatat ctatcagtaa 77700
tatacacatg cataaaattt ataagtaaat atacatatat attaggtaca ggtctaaaaa 77760
gtgttattga caggcactta tgattttaaa aaaaaagaaa aaaacttgac agctgttgat 77820
cagagaggac caatctaact gctttcgtgg accaagcaag taagacaaat gagtgtaaag 77880
aaatgggtgt aggccgggtg ctgtggctca cgcctgtaat cccaacactt tgggaggcca 77940
aagcgggcgg atcatgaggt caggagttca agaccagcct gaccaacatg gtgaaaaccc 78000
atctctacta aaaatacaaa aattagccag gtgtggtggc atgctcctgt aatcccagct 78060
actcgggagg ctgaggcaga attgcctaaa cctaggaggt ggaggttgca gggagccgag 78120
atggtgccac tgcactccag cctgggccac acagcaaaac tcagtctcat aaaaataaaa 78180
aaagaaatag gtgtaagaaa aacgaggagc cacaggcagg tgagcgcatg aaggccccat 78240
catgggcctc aactacagga gcagccgcca tgacgcccca gacaggacct cagaggacct 78300
gatcttcatt tgtattgcag ctcaggtctt tttgtgaaat cttgtgattt ttagaagttg 78360
tcagtgcata ggacaacact agagggccca aaaatctctc tgtaagccaa ctgaggtttg 78420
ggcgctgcta gtctgtaatc ttctttatag attttcacac aggaaaaata ctaaatttca 78480
ttaagtaaat gatttcttga aagtagaggt acctgaccat tcatggtttt aaagaacagt 78540
ctgaatctgg gaaggcaatt cagaagataa gtacatcctc aaggtatgag tagacgctgc 78600
taagatcagt ggctccttct tagctgagca agtgtgaaaa tcttggccag ttgctgacac 78660
cctaatcctc tgactctact tgcaatcctc agtccaaaca aggcccaccg aaggaaagga 78720
agtcctgagg tgaagtgcaa gaatgggatg agtgtatcaa cttcacacat taagtttta 78780
aaagaaaaag aacagctgaa agtttaacga ctgcttaggc tggttcaaac gtccctatat 78840
gtcaggcacg gttcctcaca tctgtaatcc caacactttg ggaggctaag gcgggcagat 78900
cgcttgagtc caggagttcg agaccagcct aagcaacatg gcgaaactgc atctctataa 78960
aaattaccaa aaaaaattag ccaggtgtgg tgatgcgtgc ctgtagtccc agctacccag 79020
gagacagagg caggagggtc acctgggccc aagaggtgga ggctaaaatg agctgagacc 79080
ccaccattac actccaacct gggcgacagt gagaccctgt cttaaaaaat taaaaaagtc 79140
cctataaaaa tgaattttat tgttctattt gaggtgactg gcaagatgcc accatctgag 79200
atgggagata tgtaagggag aaaagacttc aaggagctag ggagagacgg tgagctttcc 79260
tgggaaaagt ttacctgaag tgtctgaggg acaaacggga gatatgctgg aaacaatgaa 79320
atatacaaac gcagacctca gcaagaaagg ccaaggctgg aatacagatg aggaaattac 79380
cagcctgcag atgctaagaa aagcctcaaa accttgtgtg tgagacagaa cgcctaggga 79440
aaataagaag agcaacagag gctagacccc gggacacttc accattcatg cagagagagt 79500
ggtgggaggg tcttccgtga ggacagtgga ggcaccagaa ccatggaggg catggatgca 79560
gacaaagaga aggaggcagg tgccaccgtc tttggtgact gtcagggcac gatgaaaagg 79620
ctggttgatg gcagcaagac agacgacagg agctgcaaat gagactttat gtgacagctg 79680
ggagggaagt gtcattggta agcaatgaaa atgttcccta cacctgccct gtgccaaagc 79740
acagatgtgg ggaaatgagt gcctcaaagt ctacaggaaa aggctaatgg gagcactgtc 79800
ctcagagaag actcagggca cagaagaggt gctctgtgtg gtgggcagtg ggggtaatgc 79860
cagggtaatc ttagaacagg gactcctcag ggcccgggaa cacttcagga gggaggtaga 79920
gagcggcact cacggacaca gaaggcaaac cacatacagc actgtaaact ttctagaagc 79980
tacatcgtta aaaagtaaaa agagacagta aaaatcaata actgtattta acccagtaat 80040
ccaaactaac tgcatttcaa gatgcaatca acacaaacaa ttactgagct atctgacacc 80100
ctttgttaca agtttttgaa agctgttgtg cactttacac tgaacagcac gtctccattc 80160
tgaccagtca tgcaccaggt gatcagcagc cacttgtggt caggggccac tttacaggat 80220
ggaagaggta gagagggaag atgggccagg agaaaaaaac agaatacaga acagtagagg 80280
aggaaagact gcagggtcct aagcttcaga tattcagtga aaatcagatt aggaggcaca 80340
```

169

```
gtgaaagtaa taagcactaa agcatcacaa agaactggca gagccacaca gaggctcatc   80400
gtggggcccg ggacaggcat ggtatatcta agtcagaaaa gtgcccaggt caccttctga   80460
tggctgggcc atatctaggg tggcagtgtt aaaactggaa ggtatttgag gtgtcttta    80520
gcccagtgcc ctcagtttta caaacggaga gccaacgccc agaaagataa agtggtttcc   80580
aaatggccta tgtgcaactg tacaggcagc cctctcatct tgactttta tcccagagtt    80640
gctctaagca tcttgatcat tgtctgtaaa aatagaaaaa actgacttct agcacaaaag   80700
aaacatgtaa gaagcgttag gagagctaag ctgagggcag cattccgcta ccacacaaag   80760
gtgaaactct caccaagtcg atgccattat taccagcttt ttcttacctt gtgaaagaag   80820
gcagcacctg tcagcaccat ggacagctca caggagtagt tggagttgta gagccaggac   80880
tgatggggga tgtcccatgc gtggtaacgg ccaggaagc ccacgatgcg gtcccgagct    80940
tctctccaca cccttgaaaa acacaagtgc atacacagac ctgaatacag agctctaggg   81000
tcatcagaag tgttcacagt tattgcctcc accttacaag ctctggccct taggctttta   81060
cttctcgtat cctttcaaaa taaaacaaaa tcaacaacaa gccaaacagg ataaaagcaa   81120
ataaggtatc atattcagct tccttaataa gcacctgcac attgtccctc tagcagtcag   81180
catcctccag cccttccaga aagaataagc cctaagtttg gaaaggggat ctccagaatg   81240
gggtatgtac aatatctact aaggagggct ccagaatggg gtatatacaa taatctacta   81300
agcagcagaa agatgatatc aatttcaatt cttttttttag cttatttaat ttccaagaaa   81360
gggcttggtg ggatggctca tgcctgtaac ctcagcactt gggaggccaa cacaggagga   81420
ttgcttgaag caaggagctg gagaccagcc tgggcaacat agcaagatcc tgtctctaca   81480
aaaaaaaatt tttgtttgta attagctggg tatggtggag cacacctgta ctaccagcta   81540
cttgggaggc tgaggtggaa ggactgcctg attctaggag ttcaaggctg cagttagcta   81600
tgattgcacc acctcccttg gcctgagcaa cagagcaaga tctggctcta aaaatgaatg   81660
aatgaacaag catttctaa gaaaggcttt gtttttaata agcatgacat attagttcag    81720
aaggacatgt atgtaattta catatattgc acacttttct tttacagaga aggaacataa   81780
taaaaaggtt tagagagcac tggtttaacc acagaagact actgaactgc accactccta   81840
attccaaatt tgagcagggc tgacggagaa acatgtatga tgagaagtgg cctacagaac   81900
catacaactg aaaggtttca ttaaatggaa gaaataaatg gagacttcag tatgtttcag   81960
tagaaacttc tatatcatct ccaaatttat aggtaaatta gaacaaataa aattggtccc   82020
cagtttcaca ggataaattg gagaactgaa agcgtttaag ctccacagga cctgacaggc   82080
ctgcagaaag gctgccagag atttaaactg cctgcaaact ccctcatcac ttacatggaa   82140
cttcagttcc taagacacag aagattttat ttcaacagag ttcctctcct aataagtcta   82200
gaagcatcta atctaatcca aaagaggaga aatcacaact tctatcacaa tgtaacagcc   82260
ttctaggtgg gtttttttag acaactgatt ttttttaaat tgtggcaaaa caaacataaa   82320
atataccatc ttaatcattt ttaaatgtat ggttcagtgg cattacggac attcacagtg   82380
tcgtgcaacc atccctgcca tccatctcca gaactctttc atcttcccaa acggaaactc   82440
tgtcccatt aaacactaat ccccactccc accttccac agcccggcag cccctattct     82500
actctccgtc tctatgaatg actacctagg ggcctcacat aatggaacca cagtatttat   82560
ccctctgagt tgtttgcact tctgttacaa ataacgctgc tctggccatt tgtgtattcc   82620
tttctgtatg gacacatgct ctcaagtctc ttggtatacc ttttctgtcc cttatgattg   82680
attgtatctg cctctttctt ggctacctaa gttgaagtga gtcaagatct atctttgcca   82740
gaagaaagaa ttcttagact taccctttcc tttgaactta ggtctgtttc attcccatta   82800
aggtgaaata agcaaattgg ggagattaat aagagaaagg ttttagatca aaggatgccc   82860
aaatgcatga gaaaagggtc agggtaggaa aaggttagga tgtatagaca gcaatgataa   82920
ttcaccagct ccattaccag aggctaaatc tcaaacatga atgacagtta agagacacat   82980
taaaaggctt cccattattc tctcaccacc tgcaaatctg ctggaaaata gcacgggcaa   83040
ggtaagaagt ccctaaatca ggggcttgga agctatgtta atgccagcta tgttaatagg   83100
cttcaaactc cttaaagctg ggctccttat caaaatcatt cttggatcta agggttggca   83160
gttctcctgt taacactcca cgactatgct caccacgcca gtccttcggc acgctccaaa   83220
```

170

```
ctgcatcacg ctgcagcata aacacactcc ctaccgccca cccccaccac taccacctgc  83280
agcagcaaag atcatgcctg gagttactgc atggcttttt tcctttcata aaaacaagtg  83340
gagagagtca gctacttatt atcgtgtaaa aaaaatacac ctcggtttac caggattttt  83400
tttttaatca cagctgtcaa cagacttggt tcaataatac actaagcaag aggtcaaagg  83460
aaatgtgaga ggctgggtgg gggagaataa gaacagatgt tctaattttt cagaaatgtg  83520
tcaaatcatt ctttacagat ggatttaaga cagatgagca ataaagcctc tgctcctttt  83580
atctgagcat ctgctcttac aagcctaagc caaaggcagc tccagagcca ggtaggtcag  83640
gttaggcctt cagtgaacag aatggaagca cagagaaaga actctctcta tcctggatcc  83700
acacttaatt tgaaaaagat cgccaaagaa atctactcca gtgttttttt tgttttgttt  83760
tgttttgttt tgttttagct ctgttgccca ggctagaagt ggcatgatct tggctcactg  83820
caacctccac ctcctgggtt caagcaattc tcctgtctca gcctcctgag tagctgggat  83880
tacaggcgca cgccaacacg ccccgctaat ttttatattt ttagtaaagg cagggtttca  83940
ccatgttggc caggctggtc tcaaactcct gacctcaggt gatccacctg ccttggcctc  84000
ccaaaatgct gggattacag gcgtaagcca ctacacccgg cctccagtgg ttttcaaatg  84060
atgtggggaa gaactaattt ttccccaaaa ttattataga ttaatacttt ggtaaaatac  84120
aacaaaaatg aactgcctgg tttcttaaat atgacatcca aagcacaagc aaccaaagaa  84180
aatagatcca ctgaacttca aaacacgaac cctgtgcttc aaataatacc atcaagaaag  84240
caagaaaata acccatggaa tgggagaaaa ttgtgcaact ccaatcactg ataatggact  84300
tgcatctaga atatataaag aactcttata acgtgataat aaaaagacaa tcctggcctg  84360
gtgcggtggc tcatgcctgt aatcccagca ctttgggagg ccgaggcggg cagatcacct  84420
gaggtcagga gttcgagacc agcctgacca acatggtgaa accctgtctc tactaaaaat  84480
acaaacatta gccaggcatg gtggcaggcg cctgtagtcc cagctacttg ggaggctgag  84540
gcaggagaat ggcgtgaact cgggaggtgg agcttgcagt gagccaagat cacaccactg  84600
cactccagcc tgggtaacag agcgagactc tgtgtcagaa aaaaaaaaa aaagacgaca  84660
atccaaacaa aaatgggcaa agaatgtgaa aagccgtttc tccaaagaag atatacaaag  84720
gctaactgat caataagcgc atgaaaagaa gctcaacatc attgagagaa atgcaaatca  84780
caactgtacg gccgggtgct gtggctcatg cctgtaatcc cagcacttgg gaggcttgct  84840
cgaggccagg agtttcagac cagcttgaac aataaagtga gaacccatct gtacaaaaaa  84900
aaaaaaaaaa tgtaaagatt agccaggtgt ggtaatgtga gcctgtagtc cccgctactc  84960
aggaggatca cttgagccca ggagttcaag gttaccacat gctaagattg caccactgca  85020
ctccagcctc agcaacaatg tgagacccca tctgtgtgtg tgtgtatata tacacacata  85080
cacacacaca cacatttata tataaaatta gttatcactt tacaatgact aggacggcta  85140
taaattttga aaatggaaaa taacaagcat tgacgaagat gtggagaagc tagaaccttc  85200
atacactgct ggtgagaatg caatatgggg ctgccaccgt gaaaaacagc ctgaccggct  85260
caaaatgtta aagcagctat catgatccac ccacattact cttaggtatc cactcaagag  85320
gaatgacatg ttcatacaaa aacttgcgca tgaaggttca cagcattatt cataatagcc  85380
aagaaataga aatgacccaa atatccatca acagaaaatg aatgaagaac tggtacctgg  85440
gctgggcacc gtggctcatg cctgtaatcc cagcactctg ggaggccgag gcgggcaggt  85500
tgcctgagct caggagttca agatcagcct gggcaacatg gtgaaacccc atctctacta  85560
aaatacaaaa aataaaatta gcttggcatg gtggtggtcc atacctgtaa tcccagctac  85620
tcgggaggct gacatgaaag aatcgcttga acctgggagg cagaggttgc aatgagctga  85680
gatcaagcca ctgcactcca gcctgcgcaa cagagtgaga ctccatctca aaataaaaaa  85740
gaactggtac ctgctacaag atggatgaac cttgaaaaca tcatgttccg tgaaagaaga  85800
gagtcacaaa aggccatgca tcgttgtaca gttctattta tagaagatgt ccagaatagg  85860
caaatctata gagatgcaaa gattgagtgg ctacctagga ctgaggggtt tggagaaaaa  85920
ttgggagtgg ctgttaatag gtacagggtt tctttcagtg gtgatgaaga tttctaaaat  85980
taaccatggt gatgtttgca caactctgaa tatactaaaa ccactgaatt gtacacttaa  86040
```

171

```
atgagtgaat tttatggggt atgaattata ttgaagaaat gttgcaaaaa aaagaactgc  86100
aagaaaaata atcatatact tggatttcat agtaaatgtc aaattgcttt acaagtttct  86160
gaatgcttac cctcaatttt tgtacttacc tcaccattaa caggtaacaa actgtcccta  86220
aaccaacatc ccagtccctg agatacctgg agtagccttc atctactcca tcctcttccc  86280
tgcagtgacc ctcaagtggg atccttcagc aattcctaag actcaagaag gcaggagagt  86340
tgaaggccgg gtgcaggttg ggagtgtgac aaacctgcat ttgaacccag agctctgctg  86400
ccactttcta gcttctacgt ggttctgttc tcttctatct caatttactc ctacatgaaa  86460
tggagacagc tacaatttat gtcatcaaat tttagaagga tgaatgagat aagacaaagt  86520
cctaggctag tccctggcac acagtacggg ttcaacatat gtttaccatc atcatcatca  86580
tcatcattac caccacctcc ttttcctcct ccccttcttt ttccttttaa atcattgctt  86640
ctgacaccct ccttccccca aatctttttg ggtccaggat cctggcactg ttccattgct  86700
ccaacacaca gcaacatgtc acttttgcct tcccattcct ctaaaaacaa aaccctccta  86760
tttcctttag agaactaccc tacccgttgc ctctactctc tgcccatgtg gtttggattt  86820
aaggatgata cacctgcagc accaggaaca ggcaggtaac cagggtctag ccaatcaaag  86880
aattccacct tcctggccac agaggaaagg cctgtgggaa cacagagcgg agcctacaga  86940
tgaagagaga tggactcctc caacgccatc tacgagcctg catccagcca cgtcctacat  87000
cagccctgac tatctgcaag gggttctcag ttaccatcag ccaaaaaatt cattttgcag  87060
cctaatccag gttttctgtc acttgcaacc taaagttttg attggaaatt agtctctcac  87120
cggaacccaa acatgatttc gtcatggcgg aggtgagcat cgtcatcaat ggacaggatg  87180
gcctctgtct caatttcatt ccagggtaag aatcggttgt tcaaactgtt cttctcagta  87240
cggaccacct gtgatgagga aggaaaaaca ttaaaaatta aggctgtgtt atgaaaggcc  87300
aaacaaaatc tgtatttagg tccaaggaga ccatggctgg atttactgaa taattttgcc  87360
tgatctccgc gcttgtaaaa tctagcatat gcctttcagg aataaaagct gccttatact  87420
tcaataaatg tatatagatt tacctttttaa gcttcattca ttagttagct aattttcttg  87480
tgaatcaagc aaaagctgaa gattatttta tacacgcaat aaacacgatg tagggaaatt  87540
aaaaacaact ctcccaagag aacacaaggt ggcagagtgg atctgagatt ccaatggcta  87600
tggaattccc agcatgcttg ttaattttaa aacccaactc agaaacctca tgagtctgtc  87660
acttctgact ccccaattct aacgcctttt tgggatataa atcccaaaaa agagcacagc  87720
ccatctggtc gagattagtt acttcacctt tgaaattcct acctacaatg ctgactactc  87780
gtacacaaac ttttttcctc ttttcaaggt atcatgtact caagtacaac agcttctgcg  87840
tcttcagcaa atcccaattc aaaacacatc taagtgattc aacatacatg caaagcagta  87900
tttccttcat aaaacagaaa ctggtgcttc aaatagtaca actacataat gaaacaattt  87960
ttatttaacc atatctcagt taagtatagt ttacctacag tgtgggtgag tagctgtgtt  88020
attcaccttg ccacctaata ctcatataaa tgatgaccac agccagtact tggatggctc  88080
attttattct tagagtgtct ttgtctaatt agtccaacca aaggggaacc attattttgt  88140
tctcaaaccc caaaaacaaa gagcatctca tgaagaataa tcttttttaga atgccacgaa  88200
aaatcacctt acttccaaca gactatttta cttgtactga gaacaacctc tacctggcat  88260
gatgaattaa ctgcatccga ggacttaaat ttatgaatgg tttccaagga gctctgtgac  88320
ctactagcat gtctcttcaa cttcaaatac cttctcttcc atcctccccc tggaggtcca  88380
gttcagatgc ctcttgccac accctccttg ccaggagaat catttattct atattcttaa  88440
tgcagagccc tcatacttca attaattcat tctagcacac ttaaaatcca attaattcag  88500
agctagaagg gctttggaga ctatagcgtc tgtcacttta cacatgcaga aactgaggcc  88560
cagagtgatg tcatacaact ggcaagttgc aagagccaaa actctaattc ataactttaa  88620
aaaaaaaaaa aaagcgagtt ctcgaagtct catcactatg ttccccccag gcgtctcgaa  88680
ctcctgagct caagagatcc tcctatctcg gctccgaaag tgcaaggatt acaggcatga  88740
gccaccacac ccggtcctaa ctcatacttt gattccaaac ccagtccttt tcctgataaa  88800
ctttttgttaa ctttataaac ttcttcaaac caaagccacc atagaaaatg cttttttttt  88860
tttttttttt ttttttgag atggagtctc actctgtcac ccaggctgga gtgcagtcgc  88920
```

172

```
gcaatcttgg ctcactgcag cctctgccct ctgagttcaa gtgattctcc tgcctcagcc  88980
tcccaagtag ctgggattac aggcgcctac caccacgcct ggctattttt ttgcattttt  89040
agtagagacg gggtttcacc atcttggcca ggctggtctt gaaatcctga cctcatgatc  89100
cgcccacctt ggcctcccaa agtgctggga ctacaggcac gagccactgc gcccagacat  89160
tttttttttt tttttttttt tttttgagat agagtctcac tgtggcccag actggaatgc  89220
agtggtgtga tctcggctca ctacaacttc cacctgccag gctcaagtga tcctcctgcc  89280
tcagcctccc aagtagctgg aactacaagc agataccacc atgcccagct aatttttta  89340
tctttgtaga gacagggttt caccatattg cctaggctgg tctcgaactc ctgatctcat  89400
ggcatctgcc tgcctcagcc tctcaaagtg ctgggattac aggcatgagt caccacacct  89460
ggcctgaaaa tgcattatta atctgtgtac catcaagaaa aaacaatgtt gccaattaag  89520
aaggcatgtg aaattgatga tcccttgttt acttgattac agaacttaaa ttttttttc  89580
ttttaagaga tggagtcttg agttgtcacc taggctggag tgcaatggtg ctatcatagc  89640
tcactgcagc ctagagctca ttagctcaag tgattgatcc tcttgtctca gctccccaag  89700
tagctgggac ctacaggcat gcaccaccac acttgggtaa tttcaaaaaa aacttgtaga  89760
gacacgttct ggctatgtag ccttgactgg cctcaaactc ctggtctcaa gcattccccc  89820
tccctcagcc ttccaaaaaa agtgacagga ttacaggcaa gagtcaacac tcttggccag  89880
agctttcttt aagacttcac ctcagcccca gaggaggtcc tgcccaactc aagacaaaga  89940
aggatctgta acagattcac caccacagtt aacagatgtc caagccaagc aacagaccga  90000
gaaatccacc ttgccctgca gcatgtctga ccagcataaa aattcccaag tgtacagccc  90060
agggtatcct aagctcagag tccacaatga caaaacgaag gaccgagtga ggcctaggtc  90120
agacgagaga gcagcaagga gagcagatgc caagtgctca ccttagcagc tgtcggttcc  90180
actcgccaaa gggcgggagg gtggcaagaa ggggccggac ttgaatggca agctcagcaa  90240
tggtaagagg ccatccattg taagacacat ctcaatttca gagatgacaa aatgtaaaat  90300
aaggtccgcc ttggaaatga cggcatatgg tagctgttca caaactccct caacaaactc  90360
ccctcgaaca ttcactttac ctaacacacc tagcattcac tcagtacaga actgattctg  90420
ccaattcagc caaacaaagc tccccctcac acagcttaaa atgaagaaaa accacttcag  90480
ttcttgaata ttggcttgta gattatcagt tttgtgggtt aaccttcagg tggattatct  90540
acggcacaat tagtaaacca ggaatatagc aaggagcttc agagttcaaa gtgtgaggcg  90600
aagaccagca gcacacacca ccggagcctg taggagtgca ggcacacccc aagcccactg  90660
agtcagaatc tgcattttaa catgcccctg ggggattcct gtgcacatta aatggggaga  90720
agcactggta cagagggaga aagcatggct ttggggccaa tcagaaaagc ttgggttcaa  90780
attccaactc ctcctcttac tagacgtgtg aatgccagca ccctctctgc taaatcaaca  90840
tagcaccaca ctgtttgcaa aatctgaagt tacttatcag ccaaacttga caatcctata  90900
aacaacctaa ctctgcacct gaaaacgaaa aacaagaaaa actacaatga tttgatatct  90960
agatcatatc caaaattatc taatttacaa acaaccaaat caagagaacc tacttgtgct  91020
ttagaagact taggtggggt catgcagctg gaggtcaaat atcaaagtgt tttggcctag  91080
atttcacact agtttttttt agtaagttta ttaaagtcca ttacttagat atcaagaagc  91140
aacaagagaa caactactaa ggactccagg aacacagggc gcctgccatc tctgctcacc  91200
ctctgagcac aactgctctg ggctggatga caacagctgt tcaggtatag caaactgcat  91260
tttaacaatc agaacagcaa tcagaataaa agggccaggc atggtggctc acacctgtaa  91320
tcccagcact ttgggaggcc aaggcgggtg gatcacctga ggtcaggagt tcaagaccag  91380
cctggctaat atggcaaaac cccatctcta ctaaaaataa ttttttaaaa atctagccag  91440
gcatgggggga gggcacctgt aatcccagtt actcaggagg ctgaggcagg agaatcgctt  91500
gaacccagga agtggaggtt acagtgagcc aagattgcac cactgcactc cacgctgggc  91560
aagtgattcc gtctcaaaaa aaaaaaaaa aaaaaagaa aagaaaagct gttaaagatt  91620
cacagaaaca caacaccaag cactacagtt ttgtcagtta gctgacaaaa ctaactgcag  91680
tcagtaagtc agctttaaga attcagagca gtggttctca accaggaaca attttgcctc  91740
```

173

```
gggctacatg tggcaatgtc tgaagggatt tttggttgtc acaactggag aaaagggtgc   91800
gctacttgcg tctagtatct agtgggcaga agccagggat gctgccagat cctatagtgc   91860
acaagacagc ccccacaaca gagaattatc tgacccaaaa tgtcactgtg ccactgctga   91920
aacaccctga tttagagtca acctgcagga agacagtaaa ccaaaacagc acttggaaga   91980
ctaactatag ttcattacct aagatgttcc ccttttccct atagccgcaa aaagatttct   92040
gccctcacaa actttgcaaa cgccaactaa aactaaatgg gtggaagagt aaaagtttc   92100
ttctaacagt tttgcttcaa agctgcagtg cttaatggct aaacaaaagc tcagcaaacc   92160
aactattatc cattctggca ccaaaatcag aagaacagaa aggctcaaac atttctaaat   92220
gcaggccggg cgcagtggct cacgcctgta atcccagcac tttaggaggc cgaggcgggc   92280
ggatcacaag gtcaagagat ccagaccatc ctggccaaca tagtgaaacc cagttttac   92340
taaaaataca aaaattagcc gggcgtggtg gtgtgcgcct gtaatcccag ctactcagga   92400
ggctgaggca ggagaattgc ttgagcccgg gaggcagagg ctgcagtgag ccgagattgt   92460
gccactgcac cacagcctgg gtgagagagc gagactccat ctcggaaaaa aaaaaaaaaa   92520
aacacttcta aatgcagact cacagatcag cacggcctct aagaatctga gaaaagacag   92580
atcgaacata aaagaaacaa gtcaaccaga gggactgtgt catatttagg aaaggttctc   92640
attttgttg atgttgtttt gtttcaaatc aaaccaacac tcttccctca accccacaat   92700
actggctatt tcttcatgtt actacagcat attgctatta gatgccttat gattacatct   92760
tagtaacttg caaacaggaa gactcacttt caagtgattg ctttaattac tggtatgaca   92820
ttaaccaaaa tgaatagacc acagtgcctg gcaatatagc agatgttcaa caaatgtttt   92880
ataaatgaat gaatgggcag aaaatagaac ataatttagc cctgccattc tatttacaga   92940
atatgaaata aagacttgag aagtttctag atcaaaatta taggtaaaca ttcaatatct   93000
ttaataatct taaagaatga tagagaggaa ttaggaaacc tcttagtatt tagtgtagtt   93060
ttctatagca aaaaacccat ccacctccat caagccagga gcaatgccca ctctttgctt   93120
ggcctgtctc acacacaggg ctccctgacg gtgcctcgct agctcttctg cacaatatca   93180
ttcacgggac ccttgacctt ctcctatcac aaaggaaaag ggacagcaat cgtggcctgg   93240
aacctgccac ctatgaaatt tggccattta aatacacttg aaatgcccct tttcagatta   93300
catccggccc agccaagccc gacaatctcc atcctccaac aaaacatata tacgtacata   93360
atacatccct atagcaaatc catatctgag aatgaaactt aacatcaagc catcacacag   93420
gcaagaaagg aaacagcaac tgaccttagt tctccatcat cccctctcctc caacttaaaa   93480
gaggaaccat cagagaactc aggaatgagg aaaatgagat ccaggaagag gcacacagtc   93540
atgcccaccc agctcaggag gacctaggta acagagcttg aagtgagtgg ggagggaggt   93600
gagcgatggg agggaggtga gcgacagaga gaagatgata gaaagaggac tacatcatca   93660
tcatcattat tattattgag atggagtctt gccctgtcac ccagactaga gtgcagtggc   93720
acgatctcgg ctcactgcaa cctctgcctc ctgggttcaa acgattctcc tgcctcagcc   93780
tcctgagtag ctgggattac aggcgtccgc cactgcacct ggctaatttt tgtatttttt   93840
tttctttttt tcttcttctt cttttttttt ttttaaagca gagacagggt ttcaccatct   93900
tggccaggct ggtctcaaac tcctgacctc gcgatccacc catctcggcc tcccaaagtg   93960
ctgggattac aggcgtgagc caccacaccc agccaaggac tacattattt aagggattca   94020
ttcaataaac gtcaagtgat ggggcagaaa gcaagaaaac gcaaaggaag aaaagagaat   94080
aagaaggtaa cagtgcattg gtttttccatt tataacttta cacagggatg tcatacagta   94140
caaacaaaat tgtacatgtt ttagatgaga caaatctgtt ttaacttata agagaaaaag   94200
ttgccaatga tcccagtgca agtgcaggta agaaagccta ggttagcagg tcaacaaatg   94260
agagaatgca gataaagacc atccacagtg cctagcacac agaaaatgcc caaaaactgt   94320
taacaattat tataacatga tattagcagt ctctatttta attttcatac attttacatg   94380
tatatttcat attctgtatg tattttaatt tttatacatt ttctatattt tatacatatc   94440
tttatttaaa aaacaagtt tgtgcttctc caagaaattt acacgtggaa aaaaaaaaag   94500
aaaaaaaata catatctatt gtcagaagtc ctaagacctg gtgctggtgg tggctcacac   94560
ctgtaatccc agtactttgg gaggcagaaa tgggcagatc acctgaggtc aggagttcga   94620
```

174

```
gaccagcctg gccaccatgg caaaatcctg actctactaa aaatacaaaa attagccagg  94680
cgtggtggta tgcgcctgta gtcccagcta caaaagaggc tgaggtacaa gaatcactta  94740
aacctgggag gtggagactg cactgagcca agatcacacc actgtgctcc agcctgggca  94800
acagcgtgag actctgtctc aaaaaaaaaa aaaaaaaaaa acagtcctga gccctcattc  94860
taatacaggt atcagttagt caagtgacct gaagcaacag aattcttaca gtctcagatt  94920
ccttactttg aattagtaaa aagagtacac atacactaag aggggaagac attacctcaa  94980
gaatcaattt gctgcaatta gtaaattatg caacatgact ttccagcaat tgctttaaac  95040
ttctgtattt cttagtattc attttttggtt cggggtagcc ttgtttttata taattttcct  95100
ttgcagccat acagcccatt cgcaaacaga aacccacagc tatagccacc aagttattaa  95160
gtaaaatgtt gtcaaagaga aagaccaacc acccagatgt gccagctcct agtgaagtgc  95220
accagacctt gcacagtctt ggacctggag aagctggaca aggttttttcc tgctggcttc  95280
acctagctat cacaatttta ggaaattatc gtctcattcg ttcaagggat attttttaaaa  95340
gtagagtggg cagaaataaa aaaatacagc ttaccaacac tttaaggagt aagccctgag  95400
aatgatctcc actctcttgc ctgaggtcta gccagaagcc aagcctctta gcctgagagg  95460
cggagtcccc agccagaaag ttcctgacgc caagagtgca ctacggatgc agcttctctt  95520
ccagtcttcc ctttttccta atagactact ggggagagga tgaaaataac tcccctggaa  95580
tgatatttat attacccaaa aaaagaactc tccctgttca atttgaatat caagggctgg  95640
gacagaggga aaagggcatt gaaaaataat aatcttgtat ctctctttt tttttttttt  95700
tttttttaga dacagggtct ccctctatca cccaggctgg agcgcggtgg cacaatcaca  95760
gctcactgca gccttgactt accaggctca agcaatcccc tcacctcggc ttcccaagag  95820
cctggattac agacatgcat gatgcctggc taatttttttc tatttttttg tagagatggg  95880
gtctccctat gttgcccagg ctggtctcaa accccctaggc tcaagcagtc cacccacctc  95940
agtctcccaa agtgctggga ttacaggcgt gagccactgc gcccggcact atcattttca  96000
tttggaaaaa aaatggtgca ttctgacctc atcacttcca cagagacctt gcagtctgca  96060
aggatgtgtg ctatgctgat ctctgaactg gttctctcta ccaccgctcc tcgcctaggc  96120
tactgcaagt cttttttgctt ctgctctttt ccccatagtt ccataaaaat catgtgcctc  96180
ctctgctcaa caccctccaa gggcatccta aggcagacag gataaaaccc agacttccta  96240
accacgacct gcactgtcct gcacctgctg gtcccactgc cttctccaac ctccttcaaa  96300
cgcgccaccc ggatgcactg ggcatcgctt ctggtgcttg ccattcccca tacatccctc  96360
cagaatttac atggcctcct ctctcgcttc attcaggctt ctgctcaaat gtcacccctt  96420
ctaaaagccc ccttccaagg caccctgcgt caattagcca tacccttttat gaagaagaga  96480
atgaaaacct aagactcagg gacgggctgc caagagactg tctcagcagt cagtgagtat  96540
acagtgtgaa gggaagtgat gccttgagtg agctagacta cactgttagt aaatgaaaga  96600
tgtcccttttc ctaacagccc acatgttaca actccaaaag gacagactct aaaacagcca  96660
ccctacttac tattttccag agtataaagc agagtaagga agatgtgtaa actggtcaga  96720
ataaagtagt aactcaaacc aaaatttttta atgggactat ctatcaagaa gggattactt  96780
ggcatttctg cctccagaag agttcagtaa gcccctgcca gacccagtcc tccctcagat  96840
gacaactata acctctgcac aaaaatacca aaaaaagaat ttccagaagg cactagagag  96900
tgaacaaaag acaaccaatt atggagggggt gctaaaattc agagggaggg aattactgac  96960
acagggagaa ttactgttgc tttcaccctg agagtaggcc agagttggta ccaagaaaga  97020
cagctaaaac tctcatacaa aacccatggt ctttctggcc tgtaaaggaa atgtgtaagg  97080
taaccacagc ctgtagaaag aatggagaaa attccagaca ggagaaagcc agagagaggg  97140
agctccaagt tctgcgtaga aactgctctg tctctggccc accctaagc catgcatgct  97200
tggtgcaggc tgtaagcaga ccagctacat ataaaagaac tcaacatgag agtggccatt  97260
cacgagacag ggctttcagt ctgagtcaat acagctaacc acctactaaa acaaaaatat  97320
caacactttc cagaataaaa atcaaagaaa accatgctaa ggcataccac agtcaaactg  97380
ctgaaaacca aatacaaaga aaaaatttca aaagtagcca gagaaaacca caccttacat  97440
```

175

```
ataaggaaac aaaaatttga aaaccactga tatatcctca gaaacaacgg aggcctggaa  97500
acagtggaac atctttcagg tgccatgaaa gtggtggtcc ccaacatagt ggagagtttt  97560
tcaaaaggct agacctcaaa tcccttggca taataatact ctctagttgg ctttcattag  97620
atatctttgt tgttatgctc caggagctaa gggacctgat ccatgtgttt acaaaatata  97680
caagagcaag ggagagagca gacactcacc atcgcccctc tgtttggtag tcctaccccа  97740
ttcaacggga gacccacttc aactggtggc acttctccca tctctctgca agtcctgtct  97800
ccttgccccg ccaccatccc atttgtgctg aagttctctt tacacagagc atttcaatca  97860
ggagtgttca agggtggtgg caataaagat caccttcact ctaagctaga tcttttttatg 97920
caaataatta tttaaaagaa tgaggaattt taacatataa gtcctatggg gcacccctaa  97980
gacaatcctt ctccacttaa aatagctggg gctcaataca cttcacagcc cacaaacacc  98040
cagcacttat gcctgttgct tagtgggaac ctaaacataa gaggagcccg tattgcccag  98100
cactttctga aatggcacgg aggttcctgg gtagattcac tgatgcctgg gaacaaccct  98160
ggtgctaaat ttataaaaat taaccttagc gtattgaatt ggctacgtct acatctagaa  98220
gaaaaaccca ctctgaggtg tatcacagta gtgcccttttt tctatagcag agagagctac  98280
cagtctcttt ctagctctga tagctgggta catccgagat gtcagcaact tcaactgttc  98340
cccagaacac ccgcctctcc tagatagaaa gcacaaccac aatatttaca ggatggagtg  98400
aaattctcca tctgaagcta tttcctcttt tttaaaagga ccagaaaaaa aacttgtatt  98460
gctaatatga gaaagctgtt tagaatagcc tatctgtaaa gtttctggca ttttccaatt  98520
aggtattatt gcgatgggct gcccaatagt caggactact tatttcccat cagagttttt  98580
aaaaaaagat tcattctggt aagttcttga tgaatttcag tcaacttaac tggtatggca  98640
ccagcttctc tacatcccta tcaaaatcaa agaaaactca ggaaaaatgg aaaacaatgg  98700
ctgctctatt attctactat ttgaggagca tctatctttc acagagcaaa tgctttctta  98760
atttcaatga cataaagttg taacagaaag aaaaaaagtg aactttgaga agtctattaa  98820
aaaaattccc tatttacaaa acttaatata caaaatacac tgggataaaa aggatttata  98880
accctacagt ctttgaatag cttctaatta taaattcaat taaatttaaa aaaagattag  98940
cagcagtaag aaaaaattta aagcaaagag gcactttgca cagaaggaag taggcagtaa  99000
caactatgac acaaacagaa atgatgtaga gaggatacaa gaagcctta tgagtgaagt  99060
cagttaaagc tgcccagagc ataggcaaga caaacatact ggcttccatc tcctttaaca  99120
ttaagggata agaaggaatc aaataagtga gcacctttct agaatcctta gttgtcttat  99180
cgtagtttcc tctttaatgc tgagatcaaa aaagctaatt atcaaagatc acgaaatgac  99240
tacttaatcc caggtctgta tcactccaaa tctcatactt attacaccat gctgctgctt  99300
agaaaaataa ttcaaatgaa ttggcctccc agtgaagtac attttttaaa aaccgagact  99360
tctagcaacg tgtggcccat cagacttttt gctaccttct gccaggaagt aactacatat  99420
gcagcaggtt aaataggtgg cagtctgctt aagacctgct ctaaggctgc acatttaaga  99480
gagatggtcg ccatctctct cctagaatgc caagtttaat tctgaagatg gtaaactcct  99540
cagaactaaa gccctgtcct gcatatttag ctattatttt tcctgtaaaa tacagcactt  99600
aaccatgaga tggagtaaag aatgagaaag aacctacaag acaccctgga aggttcaatt  99660
ggagttggtt ctccaactcc aaaatatcaa accccaactc cagtcttcca aaagacttct  99720
atgaatacct ggaaaatgac acaggccttc ctaaacccttt tgggaggtga ctaaagctgc  99780
cgcttctgga atcagacata ctaaagctca gcttctccat tactcaccat gatcttgggc  99840
aaattcatta acctaagctt cagctcccat acgaataagc tgaagaaaca gcgataatat  99900
gtcacaaaat gcttattata gtgcctagag gctaagtgct tcctaaatgg tagcttatca  99960
ttatcatcat catcttgtta tgacatggaa gtctacggga taaccgacaa ggttttgtat 100020
attgaatata aaatcagttt cagttttggg gatcctcgat ttaggaagtg agtaacagcc 100080
acagaactgc caaggcttga aaaagcagca agcaaaccct tcaggaagaa aggaatctat 100140
acaggttttt catgagtatg catgtattct cctctgctag aagttacgat tgctaaagtg 100200
aaggaagttg gaaaagggat taagagtgaa atactatttc atgcaccaaa acgaactgtt 100260
cgtttctcta ttaccatgat ggggacgcca atgtcaggcc acagaaggtc ctctgatggc 100320
```

176

```
agcttgggag aattccacac caccacgacc ttgttcaggt aagggaggcc attcagcctc 100380
tctaaagagt tcataagcac ttcctcccgc tcataagtca acatcaccac cgtgaactgc 100440
tctcggggaa cattgcctcc aagcgctgcc tgaaattcct tgccagaacc cccagctcca 100500
ccaccaatag gccgaaagcc agtccctgag cccaagaatt tggcctctga gggcaacaca 100560
gggtcaaagg gagtgtgggg gaaaagatgg aaaggccctg gagcacagtt ccagctgcgg 100620
taaaagtcag tgacagtcag agtgaaattg cggaggtatc tgggtgaggc gtagggcggc 100680
tccgtctcca ctggccccag gtccaggtcc ccgttgtcag ccatgttggg gtcagttcca 100740
gccgccttgc ctgaacggtg ggggatctca gctgccgcct cttcccggat gggagcggct 100800
gggatctgga tgcgagtcct aatcatagcc agcacggtat taaaaatact gtcagcagtg 100860
gagaagtaag tctcccagag aaagcggcct tgccgcctca tagccaggag gtcactatcg 100920
gagaggcttc tgagcaggaa atgaacctcg gtaacacgag gctttggcac caccagggcc 100980
gcctcgttcc actgcagcat gtcctggtag ggaagctgga cctgctcccc cagcaccacc 101040
gggacggcac cgacttccag ggcttcgaag agccgtgttg cacacccaga ggaaataacc 101100
aagcgagggt cccccggggt aatgatgagg gcgaaggtgg agagcttcag caattccaag 101160
cggtcctccc gctctccaca cagtgcccac tcagttggca ggctgggttt gggctggttt 101220
ttgcaggtga attccaccag gacctgatcc agcttgctgt cctgcaccgc cttcagggtg 101280
gcaatgatcc ggtcatcgta gtcggcggga gggtcgccct ccatttcctc ttcgaaggag 101340
cgggcctcct gaaggctaga cctcagagac tcaatcttct cgccctggaa ggtgaagaga 101400
tatttccgct tcaccggcac ctgtggtggg atttccatga agttgggctc agacatggca 101460
tggaccagcg gtgatacgac caagtcaaag ccaggtctgt actggacagt gtagaaggtg 101520
gactgggcca ccatggcacg gccagtactg acgttataga gaaggttctg tgtatctgac 101580
ttacgtgaca gattgatgat gacatggttg tgtccatccg tccgccagtg tggcagggaa 101640
tacaactgct tctccagctc agcaggccgc agcaccaccg gctcctgcat ctctcccact 101700
agtatcacgt aaaggcaggc gatgtctgca ttttctgtaa cataaacgtt agctcgtgct 101760
gtcgcctgaa aagcctgctt gaccaaggga tccaggtagc tgccaaagac aaactggtca 101820
ctgtcataga cgtagaccgg gaagccagag gtgagagggc aacgagaata atcaaagcag 101880
ttgtgtagcc ggcagccccg agtggccttc gggggaggga ggccggcatc gtccttctct 101940
gggagcagtc ggatgggcag ggacagcttg ggctggttct gggccatgag ctccttgtag 102000
gaatgctcgg tctggctgat gacattcttg agctggagca ggtcctgctt ggcgttctca 102060
atgctcttct tacaggcttc gatcttcaga ttcagcttgg cgatctcgct gttcagctct 102120
tggcgcttgg cctccagctg caggagctct tcactcaccg actcccggat gcggcacaga 102180
tccagcacgt gcttcacctc gcacagctcg ttccccaccc ggggaccaaa aatccgcttg 102240
cctgcctcat cagcctcatc cagagtggtg aggtaatagt gggcgatgag cgggaagaag 102300
accaggatga caaagagcgt gaagctgagc cacgtgaggc ggatgcggtt ggaccagcgc 102360
agcatgcagg tctgacctcc gttccccgcg cccccattcc gcagcatggt atagcctgtc 102420
atgagtcctc tgcagcctgc cccccagatc acgtcgggtc actcgccata accatgggtt 102480
gctattccac aaaacgatct ctgtttcact gacacgtttc cagaagagtt agtgtgctcc 102540
ccagacaagg caccaaataa aatgaacatt tcattttcct cagctgcagc tgaaatggtc 102600
tctgaccctd ttccagcaga tttttaagttc tggctgttga ccaaagaaca tgtccttaat 102660
ctttatcaaa cgataaaagg tgccacattc ttgctgagat gaaagggagg aggtacctga 102720
tgatgaaacc caggaaaaac accctggaat cagacagact ttttcaaatg ccatagctct 102780
tgtttcttgg ttttgctgac caacaaatat gcatagtgtc tattcacagt tatacagtaa 102840
taggttagaa cagaaataaa tgccagcttc ttatgatgcc tttgccaaca atcaggcctg 102900
caaaagaaag agaaccatgt cagtcttgaa gaagttatgt tcaacacccc tgccaccata 102960
catttctaga aaatgcttaa atcttagatg gaacaatggc tggaacactg gctgtgtctc 103020
aaagaacatt ataatgacaa tgcagagatg ttgtttgctg tttggtatag gtcttttact 103080
tggggtaata aatggataag tgccccaaaa agctgcagtt tacaacccct ccccacttct 103140
```

177

```
tatttaactg gatctagagc ggcattatag ccctgtaaca cgatgaccaa ctaaattcat 103200
gggacaaaga tgtccatggt cttttcttat cctgttccac acctgggcat catctttaga 103260
tgaacagaaa taccttccta gccaacctgg gtagtttatg tttattccta acctataagt 103320
cttctttgga aatactttac aaaaaaagac tctgaaaagc tcaatttgtt aaatgtagag 103380
ttgaaagggt tgaagagaac tcttttgatc tttatccagt agtagatgca gtaatcctga 103440
gacaaaatgt atttcccagt ttgcttctca tttatcttcc attagcagac atcatgtgct 103500
ctttcttaaa atataaatag taacttgctc ttttagaaag aacactatac ttagaaatga 103560
gaggcattcg ttctccttct ttgctgacag atttgctatc agaccttggt ttcctaatct 103620
tctaaaatgg agataggtgc acggagacgg caatgcacca cgttgctgtg atacaaagtg 103680
cagtggatgg gaggacgctt gtagcgactc agtccctcag caacactccc agccctgctc 103740
tctcaccaag cttcactgcc actggctgca gaggcttgcc acttgctttc cctcaaattc 103800
aacacagcta gaaacaaatc ataatattct atgccaggga atattcccgg tttctttttt 103860
taattcttcc aaaaaatatt caccatactc ttaacagggc taagacatgc taagtataac 103920
tgtgggagaa tctagggtgt ataatccttg acctcatgga acttccctta ccctaagaga 103980
taagatataa acaaacaagg gtacacgtag cataaaatga gtaggacttc acagaggcac 104040
aaccacttc tctagcttct acctctgtca aagatgttta actattaaag gtgtaatagt 104100
cttctctcct ttttaccatt tttataaaca taattttaat tatgtttcag aataaagatt 104160
cctttaaaca ttctaacatt ttttcaagta acatttgatt tcatcgtaac attggacatt 104220
aaattttaat ctgtcaataa attataataa caatttctaa agacaagggg atattaggct 104280
gggcatggtg gctcacacct gtaatcccag cactttgaga ggccgaggcg agcggatctc 104340
ctgaggtcag gagtttgaga ccagcctggc caacatggca aaaccccatc tctactaaaa 104400
atacaaaatt agctgggtgt ggtggcacgc aactgtaatc ccagctactc aggaggctga 104460
ggcaggagaa tcgcctgaac ccgggaggtg gaggttgcag tgagccgaga tcgcaccatt 104520
gcactccagc ccaggcaaca agagtgaaat accatctcaa aaaaaaaaa aaaaaaaga 104580
aagaaagaaa agaggatatt agaatcagct aacagcaaag aatgagagga gggaaatgat 104640
ggtgtgagtc actttgtcca ttacaaagaa cacctgacaa gacatcagac ctaaagttga 104700
tgataatatt actaaaaggt ttaagtattt ggataatcta aacttggata attagcagct 104760
gaccaaatac tcaaatttac attatccttg tgattcaaat gtttaaatct cttgctttca 104820
aaagaatctt ctttgcactt atgaccaaat tgtaacaaag aaacaacaga atggaagaaa 104880
aagaaaagaa ggcgtaatca cagcaatcca gctgactcat tccttcctca ccatgtgttt 104940
caggaccctt ccttcctctg acttgtgtag cattacacct cagcacacga cttcttgaaa 105000
gagtgaacct ccagggcttg ctctcctgat ttaaaaaaaa aaacaaaaaa caaaaataga 105060
acagtgacat actattagaa aaatactcaa tactgaaagt gctattaaag aacctattta 105120
ctgtcccta tgaaaagatt tctcttatgt acatgaggtc accaaataat ttactgtcca 105180
aacagagact ctttgaagtg gaaagggaga ctattaataa atacactggg acaagaggta 105240
tacacgggga ctctggcagg caaaccgtcc agacagacgt tacctattta tgtgctctaa 105300
ggggggaataa aaccaaacac taaaatatgg aaaagtcctt acttgttgaa agtatatact 105360
gagatattta cagatgaaat gatatacctg gaatttgctt caaaataaac aggatgaggg 105420
tggcggggaa tgtttgcggg tagaaatgaa cccaagatcg gccgtgagct gactgctgtt 105480
gacactgaat gatgggtacc catggggct tattatatca ggctctcttt tgtctaagtt 105540
tgaaattttt cataccaaaa attctaaaag atactacata cagagtctaa acagaggtta 105600
ttaaaaagtc atttggagac tgactatagt tagtctaata tttctagtgc taccaactta 105660
catataagca gagctgaggg cagaaacaaa tgttctcaca gaaaccaata attcaacaat 105720
gattcaaaag aatgcatccc cactaaattc ccatctcttt tactggagcc aggcaaaagc 105780
atcatccatg tccaatagca tgagcattcc ttcctaaaca gctaattaaa ttatttcaag 105840
cacaaaagaa aaaggatacc ctcagaatct cttctgtcat tctctggaaa atgacaataa 105900
acatatcagc ctctagaaat aaatgtcact gaaacaatga taaggagccc ttcagatttt 105960
ttttattcca tatacaatgt acatgtctaa ttcattctca gtcacctgcc acagcatttc 106020
```

178

```
atgcttaact tgccagctgg cctccattcc tgcccctaca atgcactcca tacacagcaa 106080
ccaggaccat cttgaaacat gagtcaggcc acgcctcccc tctcaatatt ttcaaggctg 106140
cccactgtac tgccgggctc cccagaccca tctcagttac catcgctctt ccccttgctc 106200
tctcagcttc agccacactg gcctcctctt acctcctcga ctgtgccaag cttctcgctc 106260
tcaaaacttt atgcctgttt tgtctgaaat gttcttcccc aggcttctgc ctggcagact 106320
ctttctcatc cttcaggcct caactttcct ggcattacca tttaaagttg cctttcttac 106380
cccccgatgc tctctggcac cgacccactg atttacttcc taatatcttg taatttatta 106440
attccctccc ttccccacca aagcctaatc ctcgagggga ggaacccttt gtgtctggat 106500
cactgctgcg tggccagcac ccagcccagt gtccagcaca ctgtaaacac tctataaata 106560
tttgttaaat aaatgaatcc tatcactgat cacttcctca tcctacaaac tctcaattct 106620
cccctggact tccatgaagc tgtgttttt tagtgttcca tctacttccc tgactcatcc 106680
tccctttctg ctttgctggg acccagtcct cctacctcat actgaaagtg ttccccatgg 106740
ctctcaacat aatgttaatg aatccattaa caaataatat attgtattga atacattata 106800
aactacagag agagaacttc agagccagga ggcagctgga tggccatatg gacctgcagc 106860
tagactaccc ggctcaggat gcagctcagc cttgagaatt tgggaatgtt acataatctc 106920
cctgagctca tttcctcctt tgtaaagtga gtctgaaaat ctctacctac cgccagggtt 106980
attgcacaaa ttaagtaaga tattatagat ggaagaaaaa aaaatgggaa catggctaaa 107040
acagtgctaa gaggaaaatt tatgcataaa ttcttgcatt gaagaaaagt ctcaaatcaa 107100
taacctatgc tcctccttca agaacccaga aaaaaaacaa aacaaaccta aagagcagaa 107160
atcaacgaaa tcgaaaacag aaaagcagaa gagaaaaatc aagaaaacaa agaggtttgt 107220
cactggtttg aaaaacctac aagaatgaca aagaaaaaag ggaaaagaca caaatttcca 107280
atagcaggaa tgaaacaggg gctatcacca cagtccctgc aggctacaaa caactctata 107340
cacttcagtg aaatagacca actccttgga aaacacaaag taccacaact catccaatag 107400
ggaataatct gaattagttt tataactatt aagtaaactg acttcatact tttgaaaatc 107460
ccaaaaaaga aatctccagc cccagatggt tcactgaaga attctactga acatttaaag 107520
aaaaataaac acctactcta cactgtctct tccagaggaa ggaacacttc ccagttcatt 107580
ttataaacct agcattgccc tgactaaagc cagacaaaga cagtaccaaa ataaagaata 107640
ccacaagcca ggcgctgcgg cttatgcctg taatcacacc actccagaag ctgaggggaa 107700
gaggatgact tgagaccagc cctggcaaca cagtgagacc ccatctctac caaaaaaaaa 107760
aaaatttaaa ttagccaggc atggtcccag ctactagagg ctgaggtggg aggtgagatc 107820
acacctgggt gacagagcaa gaccttgcct caaaaaaaaa aaaaaaaag aaagaaagaa 107880
aactacaaaa aaaaaatctc tcatgaatat agacataaaa atacttaaca caatattagg 107940
gtaatcctat ccagaagcat aaaaattctc cccacttaca ccttcatttc tcctatcaaa 108000
gtgtcttgcg ttctcaccca tgctgtgcac ctcatattaa gtcagtctgc attttacact 108060
tcctgcccat gtcctctcct gcttctcttt ctctgacccc ttttcaccac tccccaaatg 108120
tagctgttcc tgcaggcttg tcctcaacct cttttctgcc ttcacctccc agagcttgcc 108180
aatgagcttc gcttagcccc ctgattggct gactctcaaa tttactttc ccatcttcac 108240
ctccctcctg ataatccttt ttccagtggt cagcaacaca gacatctaca cctcagacgt 108300
tcaatggcag caagcacatc ttctatgact agaacaggat catgacagtg tcttctccca 108360
ggggaaaaaa aattaaaata gttgtataca gagatttatc attcagattg tggccagcat 108420
tctacctttt actcttttcc ctaatcagac attttgctg acaaatgcaa agcagaagtc 108480
gccatctgct agctcctcat tggagggctg aaccaagcag tagccctgga aagctgtaat 108540
gtaatcactc cattcgagag tctgagcggt gggctgagaa gtcggggctc agagttccaa 108600
tccagaactg tgcacgtgct ggtgttcccc ttcaccttct cgcccctcca cctccacgta 108660
ccagggccct cctcctctca catcccttat cacaatagca aactgcgatt atctgcagga 108720
acattactca cggccttgct ttcaagagtt tgttgatata acaaccatcc tacagactcg 108780
actttttctcc ttgtaaaact aaaacactga tattgaaact tcccattgcg gatctgggat 108840
```

179

```
atgtctctat ttaggtcttc ttttgcatct tttaataaaa ctgtaaattt ttttatatgc 108900
agaaaattat cagactactc caaaagaaag aaaaaaagtt aaactacact aaaacactca 108960
cccggagaga caggagagac aggaggcgcg acagggaaga agggagtcac tgctccatct 109020
ggctgttatg ccttccacgt ggaaggtatg aagggagaac agagtgagaa acagagagag 109080
aggctagacg ctttccagat gttcccaatg aaaccttcaa cggcctctaa tatcttaaat 109140
aattatgata atagctaaca ggtattgaat gcttactgta tgccgggtta aacctattac 109200
catatattcc tcaacacact cacttaatcc tcacagcaat cccgtgaagt gggtttactg 109260
ttattcctgt tctgtacacg aggaaaccaa agcacagagg ctaatgagcc atgggtcacc 109320
catgttatgt ggtaaaactt gaattcaaac caaagcaagc tggctgtaaa gctcatacct 109380
ttaatgcctt aattatgtta cactgtctat attaattcaa gtaagagtgc gagcaggcac 109440
acacacacat gcctatcatg tgtatcattt ttacattctc catatcactg ctactccgct 109500
gtaaccatga ataataatta caattgacac acataatatt cctctaaaac ccaaaaccaa 109560
cactatattc aaagtattta cctgctaaag agaatagcag actcagaaca aaagatgttt 109620
gccactgtgc ctatggccca cctgtatatc tgtgcttgta gtactatttt ctctttttca 109680
tttaggtcaa aataggccca tcaagtggca gaactccatg acaacccagg tgcgggttct 109740
acagagctgt ctgcatgctg ctgtcattgc tgccatcacc aggagccctt ccaattaggt 109800
aaagagagtt ctccacagga aaccatttca gtgaggtcac tgaaagcagt atttcagagg 109860
attgttttgt ttttaagtac taacaaccca aaaaaacatc atttcctgat ttcctaacta 109920
caggcatgac aaacagcctg tcaaggcaag acagtaccta gttcgtgaag tcaggaagta 109980
tgttaataag cactaaaaca catttcccaa cactatcact gatttgtctt ctgtttaaaa 110040
aaaaaaaaaa aaaaaaaagg cacttcccag ggaaactaat tgtagataaa gagtaagctc 110100
taagaactac atgtagacac ttcccaagtt acaggagacc aaggccctat gtttttcaca 110160
atccaacgac cacagtggtt tcttactgtg taacctagcc tggatgaaaa aagggaaaca 110220
gaacatcctc agcaattaaa aagcaaaacg aagtgtgaaa aactggttgt gccttgacct 110280
actgactgaa gagtgaagat tatgatgcaa ccagagaacc agagtttgag ccgcccttat 110340
tacagggctg tttgaaaggg aaaacaattt attctttggg cttaagagta ggtttctaaa 110400
tcccaaggtg ttccacaaat gccactagca gacaaatcac aaaatacaaa aggaactcat 110460
caataagtgg tgagcattcc ttccgctgct gaatatatag atattaacaa ggaaaatgag 110520
gctattgatt actccaagtt atctgtttac ttggcaacaa acctgggccc agaagtctca 110580
actcccagga taagtcctca atttgaaaat tatgccattg ccttatctgc ttcccttccc 110640
accagttcgc taatgtccca caaatccaaa tcgtattgtt ttaccagtca gtttaattat 110700
gtgtaaaaat cagattcacc acttaagaat tttttcaaat aacaaaccgg gaccgtgcta 110760
cattaactaa atcagaattc ctaggtgtgg gggaaaactc ctgcagtttg acaaagttcc 110820
caggtgattt taatgcagag cacacaaccc taactccaaa actattggtc taatgaagaa 110880
ttgatagtaa tggagattca gattgatggc agctcaatca acatagacag ctaaggaaga 110940
caaacagcac tatcccttag ctaacgcaga aagtccgcac ttcaatgcac cacataccct 111000
tggaagatgg ggaggagagg gcttttttcat aattgctact gatttatatt tacagtgtgc 111060
taggcacagt actctagata acacacttca cacatacatt tcatcagcca catgggagta 111120
ctgtcatttc cacttccaccg atgaagcagt ggtgtatcac cgaggatagg aaacttgttc 111180
aaggcaatac agcaaccaag ttacaaatcc aggtccgtat gacctacagc cctgtatact 111240
gcttcttgct tatctaccat ttgtttactt agaggattca ttttgtctta attcatttta 111300
caatcattat gtattacttt tgtaattaaa aatattacct tgttgcaatc ttttttaaaga 111360
acacctcatt acatttttca ataaataatg tgacacatct atttgggaaa aaaaataaag 111420
tcagattact gcatgacaaa ccaaatccaa aaataagttc caggtggatt caagagttaa 111480
ttataataaa tgaaccgtaa caagaaaagg aaaatataca tgtaatttca tctcaagtac 111540
agccactttt ccaggaatcc aagcaaagt aaaatccaga aatgttcaac aggtttgact 111600
atataagaat caaatgattc tatgtattca gaaggaaaaa aaaaaagctt aaatttgatt 111660
aaaaatgggg aagcctgctc aatatgacag aattaaaaga aagcaatcaa cagtggtcaa 111720
```

180

```
cggacataaa taagaagtta cacaaaaaaa gggttcaagt gataaacatg tttatatgtt 111780
taaccttcct agcgatcaaa gaaatacaca tttcaaacaa gatactgtga tattttccac 111840
taataaatca tcaaagtatt gtaaaattat aatatctggt gctaagcagg atccagggta 111900
aacattccca cacttggctg ctgggattgc aaattggcac acctttctgg agcacaattt 111960
ggcagtaata aaaacactga aactgtgtct atcctctttc cctgtaattc tatccgagaa 112020
attattctta aagaatcatg agtgagaaaa aagatttaac ttccaaaatg ctcatactaa 112080
aacattaaaa tagtgattaa agtacagtac aactctgaac tatgctggct gctacaatgt 112140
ggcaggtact cttgtgttag tagaaaggta aactgaaaag taatttgcca tttgtaagaa 112200
aaaaaccttc aaaattttct tatctctgat tcagcaattt cactttctag gaatatattt 112260
taggtgagca agatttgtat gtaaagatgc aatcacctca ttattcttta tcatctgtat 112320
aaaatatata aattaaatgt ccaagactag gagcaaggtt aaacaaagtg tgactgtcac 112380
tgatatgact atgataccat taggaagctt ttcaatggtt ttaaataaaa tgaaaacatg 112440
ttcacaatgt tagctggaaa aatacagatt caaagccata tatgcagtat aacatgttta 112500
aaatgcatat gtatatattt ctgaatagaa aaacaaacag aagcaaaaac accaacagag 112560
gcacttctag attgtgaaat tataggtgat ttctgcattc ttcctatctt tctcactctc 112620
cctcctaaaa tgagatgcgt cattttcata agggctgggt agcgatgtag aaacaaggtt 112680
ttcaaataag gtcttcagat ggattttgct aacttattct cagaacagtc aacttagtat 112740
gcaagtgcct agaatataaa ctaatctaac ggttttcgct tctcaaacat acatgatttt 112800
tattttatgc tgtggaggca tacaattgat atcgttagtg ccctgggcct ccctgaatga 112860
gatagagaaa gtgaagcaag tttgctaagc catacataaa tcaggttttt ccttttttttt 112920
ttttttaag agacagggtc ttactataat gttgctcaag ctggtcttga actcctggac 112980
tcaaggtgat cctctcacct ccgcctccca aagtgctggg attacaggtg tgagccaccg 113040
tgcccagcct taaatcagct tatgactcgg gcattctcct tcaccctttg tgggtgaatt 113100
cagcttgaga cgctttacca tcccatcatc attaccatat ttctgattca tcaggtcccc 113160
taacttccca attcctcgtt cttgactcat aagctccttg tcctttgtta actcgtaaat 113220
taaggggtta gaccggatga cctcaaagat ccttttagac tctaggccct cactgacaat 113280
tgccttgctc ccaggaagca caaaaacatg ttttgctgtg gggaaaattt caccaccacta 113340
cctactcaag gcagcaaggc cattcccaag acctccttct cgtttcacct ccaagatttc 113400
aggcataagg ctttaaggcc cccttaatt ttccacagac tccattaata atttgggatc 113460
ccatcaacta ttttctccat tcgaagccac tgtgctttta tattttacag ctctacttca 113520
gaaacaaagg aagccggatg cggcggctca cgcctatatc ccagcacttt gggaggctga 113580
ggtgggtgga agttcaagac cagcctggcc aacttggtga aacccagtct ctactgaaaa 113640
tacaaaatta gccgggtgtg gtggcacaca cctgtaatgc cagctacttg ggaggttgag 113700
gcaggagaat tacttgaacc tgggaggcgg aagtttgcag tcacctgaga tcatgccatt 113760
gcactctagc ctgggcgaaa agagcgagac gccgtctcaa tagaaaaatt gaaaaaaaaa 113820
agaaaaagaa aagaagccat gctggaaaga gtaggtcaaa attgctgaaa aaacatttaa 113880
aagcaagttg gaaaagagac tttaaaggga aaatggtcaa aaaagcaaac atccaggacg 113940
ttaaccatta atattattga ccagtccaaa aggtattgga cacagccaaa tgaaggaata 114000
taccaaagga aaggcatgtg tgtgaggggt ggcactctaa ggcaggcacc cgcaagcggc 114060
agctgcctgc tttgtagat aaagtttcac tggaatacag ctttgctcat tcagttatgg 114120
attccgtttg tatggctgcg tatagtaggc attcttatat attatgtata tgatgctttc 114180
actctccaac agattctaca gttcatcttc ctatggctcc acttctagac ttttgatggg 114240
tcatttgggt gcatgtgagt agtatcctac actgcacttt atggcctaac tgtgggagag 114300
ggaagtatgt tagtaatgag tctccccaat cctcttctat tttcaagatc acaggttttt 114360
taaatcctgc ttctcttctc cctagtaaca tcacccaaga ggtctgaatg actgaaaatt 114420
taaaaggact gtgcaactgg ttcaggcaag aaaagaaaag atgaagctta caggtgagcc 114480
cacctctgtc cctcttgagc tcacaaactc tctctgcctg ggctatgcta tttccatgaa 114540
```

181

```
acctccaaac gtgaaaaatc ctttcttccc tctcagtcag ctgccctatc attgaaagtc 114600
ttcgaaatga tagttgccga aatgaagggg taacaaaaat aaaatagaaa tatgttaata 114660
gaagttttct gagctaaact taataaccag cgaatggagt aggcagtttt aggacgttat 114720
gaaacgtcct ggtttcatat tcctcgcctc actctagagt aacatacaaa ggcgctcgaa 114780
cctttaccaa gagtaggtct gatgggactt catttttctc ctaacacctg agtctacatc 114840
agggaatccc tcccaccctc ctccagaaga ccaccagtct caactgagac aaggactccg 114900
catcactcct gcagcccctc atcacccata accctccaat ccacagctgg cctagggcct 114960
gcggaaaaga acaggtctct ctctagtctt ctgctggctt caaaccaccc tctggacttg 115020
ccctctctcc tagaaataca tttcccatgc tcggcctggc ccctgactta cttctctcca 115080
aactgttccc ttaaaatctt tttactccga ggtcaaaact cttgaggcct aatcactgaa 115140
agatcccaac tacacaccaa gtattaacag ggttttcccc cactagaaaa gcgagaagtg 115200
gagggataca gacatacgcc tgtcaatcat tttttaggta ggtatgcccc tcacatctct 115260
ggacattaag cacgtttccg gaagtctgaa gagccacaat tctgactctt ccagaaagca 115320
cttaggctcg attctctctt gctcgtgagt tcttatgatt cctccggctc cccacaagca 115380
aacgaatggg aaattcccac aggataaggt atttttaaca catcaaataa cagtttaaga 115440
aaacggtttt tctttcatca caaatatttt caaagtccct ctgctaaata gcaagtcgct 115500
gagaaggctt cgcttcgctc cagactctgt gccccgcagt tactatccca gcacacaggt 115560
cacagcgata gtcactgtat cagaatgcag gactcactgc cgaacaaaat acagaaaact 115620
gcagagtctg catggctgca acacacaaag cctttaaaaa caaaagaaag cacggggagc 115680
tctgccagta aaaatgaagc tacctaaatt ggacaaagaa taggacaaag tgacaagaaa 115740
tgctaaagac gactcttaag taaatcacat atgggggaaa taatggacat gttgtggtgt 115800
tctgcgcttc ctcctccacc aaaggagtcg aaccaagagg acttgatgaa gcttttagag 115860
tttttaaaaa gggaagaaaa atccaggttg cggggaaggg cgggggtggg gtggtgcggg 115920
tggcggggga ggggcaaaat ccacaaaatt taagtcttct gagagccaaa cagattttat 115980
taataaaagg agccgaagct ctcgctcaat gtggggaaga gaaagcagca cccatcagca 116040
gccgggcagc cctggctcgc ctccgagggg ctcggaatag gtgctgtccc cgtcgctggg 116100
ctcggagctc cgccgcgcac acacgccccg cgcacccctg tccggtccag cccgtgcagc 116160
gcgaggccgg ctctagggga gctgggcctg ggagccaggg tcctgcagca cctggaccct 116220
cggacaggaa gcggctcctc tgactgtggc tcctgaaagg aggcgagccc ggcaaaaaga 116280
gccagcgggg agggcagcag gcgactgcgt gtagaagcgg ggggcagatg tgggaaggtg 116340
tgctcgggaa ggggtggggg tagtccggag ctgcgcctcc gccgacagaa gatgctccgg 116400
gccagcagcc agagaaacgc cgcgggtcac agagggtgga gggcttcagg gagcagagga 116460
agcccaacag ctgcagccga gcgtccaaaa aaaggtggag gcgggtcccg agcagcccaa 116520
actgggacga gagagggcgt gtgggggcgg ggaggggggtg ccccagccca gggacccgtt 116580
agccctcccg gctgccggcc gagggcctgg cggcctctcc ccggcccccc gagccaccgg 116640
gcaggcctac tccgctcgga ggctgcatgc ctcccgccgc cgggcagcag cagcctcccc 116700
ggggcacggc ggacccggtc cctcccgccg cgtccccagc gctcggggcc agccccggca 116760
ccctcccatg agcccttccg ggcgcggccc ccgctcctcg ggctcacgcg cggccagcag 116820
tcctaccggc ttccagctca gggacccgcc gccgccgccg ccgccgcctg cgcgaaagtc 116880
ggcgtcccag aagccgttct ggctgccggc cgccgccctt ccaggccgcg cctgatccgc 116940
cgctccccct gccggccggc agccatttcc gacaggcgac tgcggaactt gccgaagggc 117000
gccgcgccgg aaatggccga agccggcgtt cgcgagcggg ggcgcggacg cgggcgcgcg 117060
ctcgccactt tcccgaccgc gtccgaagac cgccgaggcc tcccgcagct ccgcggtgac 117120
acccgggtca ggggcgcggg gccgggcgcc ggggattgtg ggaggcgcgg ggggcgcgc 117180
cggccgcctt cggagccccc caactcgcgt cctgcaaagg ccgccgggcc ctgtcgagaa 117240
gacccgaccg cagatggcgg ggaggatgct cccggcggcg tgggaaccgg gtctgactcc 117300
cgagccaccg ccgcttccgc aggggcgccg gccccgggaa agtcaagtca taaatccctg 117360
aatctaaaac tccattctca gagaaaaggc ctccaaggac gggcgccgtg cgcggcaact 117420
```

182

```
gcctgcagtt ttgaagccct ttgactattt cataacaaag acaaggccgg gcggcttgga 117480
cgcttaggaa aatcctgggg ctttgcaaaa acaacaggtt aatctagtcg tgtgggatga 117540
tcaccaaaac aagacaggaa agaagaacac cgtgtcaatg ctgaaaagcc agccctgtg 117600
agccccaaag tgcacgtttt ccacagtccc aaggaacacg tgactgtgtg tttccacact 117660
tgagaagtca ggataagacc ccttggataa tggaacaggg gatgggggtg ggagcaagca 117720
ccctacctgg tcacctgctt aacttagaaa ccagctttta aaacctgtaa ctgcagtatg 117780
agctacgatc aaatttgtct taacgtattt tttttaatgt ttttaatacc cagaacacag 117840
ggcttctact ccagggtttc ctcgccaggg aaccccaaac acacaggacc tggagaagcc 117900
gggtagagct ggctcctggc cctgcgcttg ggtggtcggc tgccttaaga agaactgcac 117960
cccagagaca ggctcgcagc tgccgacctt atccactcgc cctttctgct ggagcccagg 118020
cccagtgctc cagcaaggag gctgagaaaa tgctgaagac tgatgcccac gggggacagc 118080
ttgggctaag gataacgttt gcaaaacaaa cctttaaaaa cccatagcaa cctgtttcct 118140
agagcacact cttcatctct ccacccccaa actagtcccg actcggatcc tccttttcct 118200
atcctctttc tcttgctctc ccgtctccta ttcactttc ctctcctttc ctcttgatta 118260
ttataaacaa atgctttcca agtcttaccg ccatcatatg tgtacatatg caacccttac 118320
tgttaccaat ttgttgaagt caagacagga ggaggcaaag tttaaaaatc agaagcattg 118380
caggaaatga aaatggagtg agtgttgcct gggtatcata attttttttt tttttttaaca 118440
gttcctctac ttggctctcc tccaaaggta cgcggccaca gcaggcaggg gcttggcagt 118500
gtgggaggag acaccacaga agacagggaa gaactaccag gccttggttc atctccacac 118560
tggcgagaga ggacgtgcag ttacctgcta cctgttcgac tcagtctttt acgttggagt 118620
aacaacacat tgctgccctt aactttgact tacttgcttt taaagatgat gaagctggcc 118680
aggcgccgtg actcatacct ataatcccag cattttggga ggcccaggca ggtggatcac 118740
gaggtcagca gttcaagacc agcctggcca acatggtgaa accctgtctc taccaaaaat 118800
acaaaaatta gctgggcgtg gtggcgcgtg cctataatcc cagctactca ggaggctgag 118860
gcaggagaat cacttgaacc cgggaggcag aggttgcagg gagccgagat cgcaccactg 118920
cactccagcc tgggcaatag agcaagtctc catctaggga acaacaacaa caaaaagatt 118980
atgaagcctt aggaagaaca gggatattca cctgctgctg agccccctc cgctttgatc 119040
ttgtgagtct gcactctcct gctccctgt ctgtctcctc tagctcctgt tccttctcct 119100
accttgtgtt ctctgccaat gatatgactg gggctacttt ctttttttcct tctcacactc 119160
tcttcttgct aatttcaacc aatttccctg catcatctcc acctgcaagc tggtcctta 119220
cagcagagct tggggccctg ctgcccagta gcactctgga caccctcaca tcatcatcat 119280
catcctattt ttatttattt tttggaaaca gggtcttgct ctgtcgccca cactggagtg 119340
tagtagtgca gtagtgcgat cacggctcac tgcagccccg atgtccctgg gctcagatgt 119400
tcctcccgcc tcagcctctg gaataactgg gaccatagat cccttccact gtgcctaatt 119460
tttgttttt gtttttgttt ttgttttgag acggagtctc actcttcttg cccaggctgg 119520
agtgcagtgg catgatctcg actctctgca aactctgcct cccgggttca gtgatctcc 119580
tgccccaccc tcccgagtaa ctgggattac aggcacgcac tactgtgccc agctaatttt 119640
tgtattttta gtagagacag ggtttcacca tgttggccag ctggtctca aactcctgac 119700
ctcaagtgat ccgcccacct cggcctccca aagtgctggg attacaggca tgagccacca 119760
cgcccggcct aattttttgtt ttgtttttgtt ttttgtaga gacggggttg caaccatgtt 119820
gaccaggctg gtctcaaatt cctgagctta agcaatcagc ctgtcttggc ctcccaaagt 119880
gctaggatac aggcgtgagc caccacgcgg ggccttcatc accctattaa tatatacttt 119940
ctgatactta attgccaggc aataagctaa acccttttat tcactgtctc actttaatcc 120000
ttacagggaa gtatcggctg ccagatuggg agctgagact tcaagaagct aaataaggtg 120060
tccaacacca cagagcatgg agcaaaggac acgggactgc aaatcttcct aactcgtgtg 120120
ctcatctggc tatctcacca gggccttaaa tttaatatat cccaaactga actcatcttt 120180
acccttccc actttgcact cctcaaatgt ccttgtttaa aatagttacc tttatctttc 120240
```

183

```
ctaacccaga aactcaaaac ctggcatcat ctttgacttc tctctttacc ttcacattca 120300
acagtttcca agacttaaag gctttatttg taggatctct accactgatc ctctacagtt 120360
tcacacctac atcccattct cgttcccaaa tccccataac tcctctcctg gcccatccct 120420
taacactgaa atcctggctt ggaaaatatg gtcacattca cagcagctgt ccccaagaag 120480
gaagccaagg caacagtatg cacaatgaag tgagtcttca ctgatctctc catattttga 120540
cattttacag cacttattat ctctactttg tattttgaaa ctgaatccaa aatagttttg 120600
catttgttgt ttaacagtca tgtatgtagt tttttttttt tttttctttt tttttggaga 120660
cagagtctgg ctctgtcacc caggctggag tgcagtggcg tgattttggc tcactgcaac 120720
ctccgccttc tgggttcaag cagttctcgt gcctccctga gcagctggga atacaagcat 120780
acaccaccat gcccagctaa tttatttta gtagagatgg gatttcacca tgttgcccag 120840
gctgatcttg aactcctgag gtcaggcaat ctgcccacct cagcctccca aagtgctggg 120900
attacaggca tcagccacca cacccagccc ctccatgtgt gtagatattt atccacatcc 120960
aaaaattagg aaaagcagga cgcattgaac ctttggtacc cagcagcagg agcctgtggg 121020
tcttctgtct ggagcacaat cacaaggacc gagcatcagc agcatccact gtcctttcag 121080
ctccaaattt taaactcccg taagagagac attattggcc cagcttgggt cgtgtgtcca 121140
cccctttaat caatcagctt tggccaagca gcaggtcatc ctggtccaaa catcacagtt 121200
gggggcctca cttgtaaata gagcttgttc ccaaaaaaga gggaggcaca caccattcat 121260
ttgtttattc attcattcaa tcagcaaata gttgagcatc tatagaaata tatttaaggt 121320
tctattatgt acacaaaatg tataaaacat ggccctgccc tcacaccatg aaagttacca 121380
cataaaaaga agtcaccaga taaaaaaagc ataacagtat tcataagtac tcatgagtga 121440
ccatcaattc agttacacat gatggaagat aattcattat acctagtata agccagtgac 121500
ggtaaaaata gttagcagca atgtgtacat gatcaacaaa agctcacagc agcaccattt 121560
acacaaaaac agaaaagtac ccagatgtcc atcagaggta gaccagataa aatataaaat 121620
ataccaccac acaatggcta acacctgtaa tcccagcact ttgggaggct gaggccggca 121680
gatcacttga ggtcaggagt ttgagaccag cctgatcaac atggtgaaac cctgtctcta 121740
ctaaaaatac aaaaattagc cagttgtcat ggcatgtgcc tgtaatccca gctactcagg 121800
aggccgaggc aagagaatcg cttgaacctg ggaggccaag gttgcagtga gccgagatca 121860
caccactgca ctccagcctg ggtaaaaaag cgagattcca tctcgaaaaa aaaaaagtgt 121920
atatgtatag tgtatgcatg cacagaatac tttacagcaa taagaatgag tgttctgcaa 121980
atatacacaa tattgctgac tctcccaatg ttaaacaaaa gcatccagac acacaacaat 122040
gtgtacagta tattattcca ttgatagaaa gcttaaaaac aggcaaaatt aattcaccct 122100
tatggagtct taagtaaggg gaacaaaagg ggccatctgg gcagtgataa tgctgtttct 122160
tgagctgggt gctgggttca caggtgtgtt cagtttgtca cattcatcaa gcttacactt 122220
ctcatacatc ttcttttcta tatgtatgtc atccttcaat aaaaagtttt taaaaaataa 122280
ataattgggc ttgtgtggtg ggctcacacc tgtaatccta gcactttggg aggctgatgt 122340
gggagaagca cttgagtcca ggagtttgac cagcctgggc aacacaggaa gaccctgtct 122400
ccacaaaaaa tttttaaaag cctggcatgg tggcacactt aggtgggtaa ggtgggagga 122460
tcgcttgagc caggaggttg aggctgcagt gagccgtgat cgcaccactg cactccagcc 122520
tgagtgacaa agtgagacca tgtcttaaaa aaataaaaat aaataattgg cactcaaagt 122580
aagacacctt taatctccct tgaacatcag caccatgatt atcctggagt tgccaattat 122640
tcccacactc cccacctcct ccccatcacc accaccatta tgccccttc ttagacacat 122700
aagacactgg agcctttgga aggagccact atatttaccg catgacctcc ttccctctgg 122760
tcccagccta ctggacttct tacctggaat tgtgggaaca ggtcactgta actaagtcac 122820
gtgacagagt gcttgatcta ttaatttaca catatttgca agaaagaatt tctgggcatg 122880
tgcacagtga taagctcaga aagctggtct gcagaaaaca gaagcaaata gagtcagcat 122940
agagagggaa acaaacaaac ccaccagaga tggagaagcc tcagaggctg ttgacattga 123000
cctgtggtac ccacatgtcc caggtgacac tgggtgtcca cgtgattgct tatgtagcct 123060
tactatttaa aaaatcctca taatcccagc actttaggag gccgaggcgg gtgtatcaca 123120
```

184

```
aggtcaggag ttcaagacca gcctgaccaa catggtgaaa ccccatctct actaaaaata 123180
caaaaattag ccaggcatgg tggtgggtgc ctgtaatccc agctactcgg gaggctgagg 123240
cagagaatca cttgaacccca ggaggcagag gttgcagtga gccaagatgc cgccactgca 123300
ctgtagcctg agtgacaaga gcaaaactcc gcctcaaaaa aaaaaaaaaa aatcctcatt 123360
tacttaaact aacatgaata cgtttctgtc tccggccacc aaacatgacc ctgcatgttc 123420
ttccctggaa gaaactaagt agttattttg tttgtttgtt tatttggaga cagagtctta 123480
ctctgccacc caggctgaag tgcagtggcg tgatctcagc tcagttttgg caacctctgc 123540
ctcctgggtt caagaaattc tcctgcttca gcctcccgag tagctggatt acaggcatgt 123600
gccaccacgc ccagctagtt ttctgtattt ttagtagaaa tggggtttcg ccaggttgcc 123660
cagtctggtc tcgaactcct gagctcaggc aacctgcctg ctttggcctc ccaaagtgct 123720
gggattacag gtgtgagcca ctgtgcccag cccccttagtt atttcagagc cagactctta 123780
agcactttgc atgtgtcatc ccatgtgctc ctttaacgac cctaaacaat aaggaccatt 123840
attagtcctt tgtcacaaat gagaaaaatg aagcccaggg aggttaacta atttgcctaa 123900
atcaccagcc tagtaagtgg tggtgccagg ttttggaccc tgacagtcta actccagagc 123960
ctgaaacttt accagctgtg ctccgctgtg gtgcaagaga aatgctgacc atggcgatgt 124020
gaattgtctg ctgcattagt agatttaaca aaggcatttg atttgttaaa tgagttcaaa 124080
tgtagaaatg atacaaaaga tcggctgtct agagaagctg gtgcacacat ttctttcaca 124140
agggaattat cgtttgaggt atacaagcca gagaaatgta aactgcatag agtgtgacag 124200
atatgccaaa caagtctgtg ttctcttacc aataaaattag tttacagatt tcagcaaatg 124260
ctctcttggg ggcccccact gattgcttat ttttccccac gtgtttaata tccaggagaa 124320
ggggatttga gtcccacaga aggagaaact ggtgataaca gttacttcaa gtctcagaga 124380
gggaggtgcc tcattttcca tgttaatggc tgccagcccc acaatccact cagcaagcct 124440
tctagatcaa tcccaaacaa gccattggtg accccccagca atcttcaaag ggaattatca 124500
gtgaggttaa gtcagataag aacttagtct atttgtaagg ctttgatttt aaaagaaagt 124560
gctgacagcc actattcaag atcttttcta tatataaatg actgagcaat tttgtggctt 124620
ataattagaa caatgcatga caatttctag attgaggttc caaggttact cttctctttg 124680
gtctatcagt gccaaaaagc caaaaggtca tcttctaagg ctccagggat agcactcatt 124740
accctgataa atggctcact ctagaagtcc tggctttgat gttacctttt aaaagtggct 124800
ggttttttgtc tggccaaagg tggggccatt tgggtggctc acagataatt tgtggcaaca 124860
ctgagttaat atcagtttca agacaaaaca cattttattg ttaagaaact atttgttaac 124920
tcattacctc atgtcatagt attctctgcc ttgccatgtg gctataaaaa aaaaaataaa 124980
cattcaagtt tcacattaga aagcttagcc tgattcaaat ctgtttctg tggctgggca 125040
ctgtggctca tgcctataat cccagcactt ttgggaggca gaggtggggg gatcacctga 125100
agtcaggagt ttgagaccac actggccaac atggcaaaaa cccacctcta ctgaaaatac 125160
aaaaattatc ctggtgtggt ggcgggcgcc tgtaatccca gctacttagg agcctgaggc 125220
aggagaattg cttgaacctg ggaggcggag ggtgctgtga gccgagatta tgccattgca 125280
ctccagcctg ggtgacagag caagactcca tctcaaaaaa aaaaaaaaaa aaatctgtta 125340
tctgcataag acacctaacc tgtaatgacc aattaagact caaattagct agcgccaaca 125400
gcgggtatca aaatgccatc aaaattttct aagcttgcac ctacaaatgt tccctaaggc 125460
aagcataaag gcatctaaca tttaccctaa attatgccag tgagtagcaa aaatgtgctc 125520
agttagacgc aacatgtcac aacatggtct gactgttgga agaacttagt gcaggagag 125580
ctatacccag aggaaagaag taaaattagg cagagtgttg atggctgagt tccagtgtca 125640
catttatata cagctcaatg actctagaat tgtccttaca ccaaaaaaaa gttattcata 125700
gattcaaaaa atcaactgct cactactttc atttaaaaat gccttgtgtg aacaaggcgt 125760
tccaactgaa aactggcaga attcatagag gttcttaaag aacatcaatt agattcttag 125820
tcaaccaatt tggctgtaaa atcaaaactg aaagtgcaat ttccaaaact aattatgcta 125880
aatactttta aatatatata acttgataat aacatttgga ctttatgtat ggaaagaaac 125940
```

185

```
agtagtttcc accacaggaa ttttcaaaag aaaaatatat aggttttaaa ccaatttatg 126000
aagatctgca ataagatttt attgaagaga aagttttccc ctattttcct aaatattact 126060
caaaattaat tctcaaccca aaaggtgaca gcatgattct agtagggtcc aagtcaatcc 126120
cagaacacaa taataattga tcccttcccc aacccaagcc ttcagccttg caaacactat 126180
gccatagatc aaaagtggaa ccaaatgaaa atgtgaccat atttctacaa atccatcaat 126240
ttggagggca aaaaaccaac aatccaaagc ccatctctaa tggacagtgt tagatatttc 126300
accctcatgt caaaagaaac atgtataatt acatcatcta ggttactaag aaaagcatat 126360
ctttaaagtg aaggggtatt tagaaaaagg atacttgaca taaatgatgc aaatactcaa 126420
aaaatatatt aaatatctgt gaaatgtgtt aactatgaaa gcttttaaa agcacatgct 126480
gagccttgtc ttactttcgt gtacatttaa ccaggcttca ataatgctct atttatcttt 126540
atttcattaa ttaaataata aatatctaaa ttttttttatt ttttgagaca gagtttcgct 126600
gttgccccc aggctggagt gcaacagtgt gatctcggca caccacaact tctgcctccc 126660
gggttcaagt gattctcctg cctcagcctc ccgagtagct gggattacag gctcgcgcca 126720
ccacgcctgg ctaattttgt attttttagta gagatggggc ttctccatgt tggtcaggct 126780
ggtctcgaac tcccgacctc aggtgatcca cccacctcag cctcccaaag tgctgggatt 126840
acaggcgtga gccaccgtgc ccggccaaca tctacatatt agtaggaaca caatagcaaa 126900
aaaaaaaaaa aaaaaaaaaa tcacaaaaac tgataaatat ttaccaactc tgtggcttcc 126960
ttccagctca tgagcataat tttataaaat tgctatctct atgtgtcaac catttcaagt 127020
ccttcttttt cacttacttt gaatgaagta ttatgtttct acatgatctt cacagtcatc 127080
ttgaaagtta ctggagcatc ctatggtcta gctcagtgat tcctgaataa cagtttattg 127140
accaagctag gatgaagttt tcatcagtcc acagttaaat gcgaaaagca cagacaagtt 127200
tgtgagtttt taacaaagct gaatgattca attgaaagga ttagacttta ttctgagatt 127260
atgttattct ccctttttta tgttaaaatg tgtttttatg aaatgaccat ggtggtggtc 127320
aacggcagct ttttctgtat ctttctcact caacaaaaca ctgaaatata ctaattttgg 127380
tatcccctac ccagttattt tttattttac tggtctatta aacctaaaag tctggtaact 127440
ataataccag tctagcctgt ctaacaacac acatatatat taaggcatac acttcccccc 127500
aacttcaccc ctgcaataca gaatgttttt ggagactccc atggcagcca gcctctgaaa 127560
gggcccccaa tgatccctgc cccctggtat tcacacagtt gtgaagtctc cacccacacc 127620
ctaactagga tccatctgtg tggccaatgg aacacagcaa aagtgaaggt atgtcactcc 127680
caggattaaa cgacacaagg catttcagct tccatcttgg ttgctttctc cttcttagat 127740
cactctggga gaaactcact gccatgttgt gacaacacta tggagacgcc caggtgaggg 127800
actgaggctt cctgccaaca gccacatgaa taagattggg aacagatcct ccagccccag 127860
tcaagccttc agatgactgc agtctcatga aagaccctgt gccaaaacca cccagcttga 127920
tgaaataatc tgtacaacaa accccatga cacaagttta ctacaacaaa cctgcacatg 127980
tacccctgaa cttaaaagtt aaaacaaaac caccaccacc accaccacca cccagaaaaa 128040
acacccagct aagccacttc tgaattccta acctacagaa actatgaaat aataaatatt 128100
tgtattttca aaattagctg ggtgtggtgc catgtgctta taatcccagc tacttgagag 128160
gctgaggcat gagaatcact tgaacctgag aggcagaggt tgcagtgagc caagattgtg 128220
ccactgcaat ccagcctggg cagcagagcg agactctctc aaaaaaaaga aaaagaaag 128280
aaagagagaa gaaaaattaa aattaatgtg tagaatattt tttaaattaa agttaaataa 128340
ataaatattt gtactttcaa ccatcaagtt tgaggtaatt tgttattgac caatagataa 128400
taaatacaac cctttatcc tatttcagcc acaaatgag catccctgta gcccccagg 128460
gatgcaatgt ggtgcaatgc agaaactgta tttatggctg agttggaaga gagatcggat 128520
cagcaaagac tgtgatctcc tttaccctgg ctttagttta catactctga ctttttttctt 128580
ctctgttgct ttttctactt ttcttgtatt gaccagggta ctcagtaaac tgaataatcc 128640
atctctagca agggactcaa tcctgcaagt ttatatgctt aaaggaatta ctttatgtaa 128700
atatggtatt ttatgaaatt ttagaaaact ggtaaatgtc tattgacaga atccctaacc 128760
ccagctgtcc aaatctttgc tagactcatc cataccttaa aagaggagca tgtcttatat 128820
```

186

```
ttcactaaga aaatagaaga caacagatat gaactctttg aaatgccttc cttccacctt 128880
taaaactata agtattgagg tgaaaactat tattttagta gatgctagag ttcttaggga 128940
tggaaaatgc cttatttagg aaactacttt gaaatgacat ttgaagtatg gaaaaagaga 129000
gaatgactta gaataaaact ctgaagcaaa gagacagcta gtcagatcta tattttttaa 129060
aatccaaaaa catggggact ggaggagagg aaatggaggt ggataagaag agatggggct 129120
caaataacag tgtgggaggc tggagctgcg ggagagagtt cccagtgata ggggagccgg 129180
agaatgttta aaatagagat atctattgtc ggaatttaa gttatttgtg ttgctaagga 129240
tataaaatcc cctaagcctt cagtaatatc tgtcacatgc acaaatgcct tatgtgagtg 129300
atttggggga gaattacgaa aaaagattgc aagggctga gctccacaac tgggtcagca 129360
aagaaccaag aaatgagaac agccacagaa gttcagatac aagtaagata aagaatttaa 129420
tggaagcaga aactcaaagc caaagaaacc ataagaagga gagcttccag gaattcacag 129480
aaatcttgga ttgagtttcc caatggatgc agaatgggga cttaagccaa tgttacttaa 129540
atctcagaaa agaatgttgc cttaagctga cagctgagta catattcact gattcttctt 129600
tcatctcttc cggcccttga caaagagatg tccttaactc ctttctgaaa ctaggtgctc 129660
cattttgaa tgtgatctaa tatccttcct ttaactcttg cttgatcagt tattctcttt 129720
gctacataca tggtcaataa cctccttact atagcgtttt accccattc tgcttataaa 129780
caggttcagt ctcaggcctg gggaaaataa gagaataact cagctcaagc taccatcatc 129840
ttacaacacg ggctctgaac ccagaaagat ttagatttga atccttgttc cactatgtat 129900
tcatggtgga acaccctggg catattacat aacctctcta tactctctcc actacaattt 129960
cctcatcaga acatggggat aataacggta cctacccata ggagtagtgt aaggattatc 130020
ccagataatg catgtaaatt gttagtccag ggcctggtat acagtaagcc ttcactaaca 130080
tcaactgctg tcatcatcat catttgccca aattcttgag tcatctcagg ctgggcacag 130140
tggctcatgc ctgtaatccc aggactttag gaggccaagg tggacggatc acctgaggtc 130200
aggagttcga gaccagcctg gccaacatgg tgaaaccccg tctctactaa aaatacaaaa 130260
aaaattagcc aggtgtggtg gcaggcacct gtaatcccag ctacttggga ggctgagaca 130320
ggagaattgc ttgaacctgg gaggcagagg ttgcagtgag ccaagatcgt gccactgcac 130380
tccagcctgg gtgacaaaag cgaaactccg tctcaaaaaa aaaaaaaaaa aagtcatctc 130440
ttctctactg tcattcactc tttaatccct gggggggctgg ctgctgtcaa tttactgaaa 130500
ctgctctcat taagataacc agtgatcact tctaatatga ggttatagaa aaaacaaatg 130560
aaaacacaaa atgaaaaaaa gaaccagcaa cttcctaaat tcgttatccc acttaatctt 130620
tcaggccttt ggaactcttc tttagaattt aacagaccta gtcactcacc ttcttgaaat 130680
ggtccagtct ttgctttgca tggcattgcc tctccccatc ctttctcttt tctttcatta 130740
agtcttaatt ctccaccatc ccttaaatgc ttgtgtgtct gggtctccac ccttagccat 130800
cttttatca ctaggtgaac acttctaaga cttcagcagc caaatctcta tctttagccc 130860
agaccttcct tctgagctct tgagccaaac tgtccactaa atttattgtc taaggttttc 130920
acagtcatcc aaaccaaatt tatagagact attaactaaa tcattatttt ctctcccttc 130980
cccaattctt tcccttccct agtaatcatt ttcttttttt ccttttttgag atggagtctc 131040
gctctgttgc ccaggctgga gtgcagtggt gtgatctcgg ctcactgcaa cctccacctc 131100
ctgggttcaa gcgattctcc tgcctcagcc tcccaagtag ctgggattac aggcgcatgc 131160
cgctgcacct ggctaatttt tgtatttaa gtagaggcga ggtttcactg tcttggccag 131220
gctggttacg aactcctgac ctcaagtgat ccatccacct tggcctccca aagtgctggg 131280
attacaggcg tgagccaccg caaccagccc ctactaatca ttttctcaag tttccagctt 131340
ggactggaat gtcattgtta tagtctagcc aggagtccaa gctggaaaca tcagttgtta 131400
tccttatatc tccctcaccc agcatgtcca actggctatc agggcctgac agtcccacct 131460
caaagtctca tggcttcccc gagtcctgct ccatcctaca tgaccccact gtatttcaga 131520
gtgggcttta gagtcacatg ggcctgggtt caaatattaa ctatgccata aacctactaa 131580
tgactgtttt tggtcaagtg acttaacctc tctgacctca gctttttgtg ataattaaat 131640
```

187

```
gagatatcat atgtaaaata gctggcacac agtaagcact caacaaacat tccgctgcat 131700
cccctcctt tgggtctcca ttgctaccgg gtggaatgca atatctacct acttggtcta 131760
tcttgtcctt tctcctccta attgccctag agttaatttt tctaaaataa ataaataaat 131820
aaatctggta ctatcatcgc tggctttaaa accttcaaca ttttctttt tcctgtggaa 131880
tgaagtctca attccttaac ataagtggta agttccagct gcctttctgg tccctgctcc 131940
ccaagcccat ttactccaaa acattggctt tttgccagcc acttcatgta catacgggct 132000
taatctccac acatgaagag ccctttgact aattcccttc cccacaccaa gttctgtcca 132060
attggcaaga acctcaaggc ccacttcaaa aactatcata taaagggtga tacctattct 132120
taagtggttc aattttttc ttttcttttt ttttttttg agagagagag aggatactgt 132180
tatgttgctc aggctggtct tgaactcctg ggctcaagtg atccacccc atgtcagcct 132240
cccaaaatgc tgggattaca agtgtgagcc tctgcacctg gcctggttca attttttaaa 132300
actattttt acatatacgc aaacataggc caggcaccgt ggctcacgcc tgtaatccca 132360
gcactttgga aggccaaggc aagcgaatca cttgatgtca ggagttagag accaacctga 132420
aaaacatggt gaaaccccat ctctactaga aatacaaaca ttaactgggc atggtggcag 132480
tcacctgtaa tcccagctac tcaggaggct gaggcaggag aattgcttga acccgggagg 132540
cggaggttgt aggtgaggcg agatggtgcc actgcactcc agcttgagtg acaagacaag 132600
actctgtctc aagaaaaaaa ataaaaataa aaataaaata aaatataaaa atatgtatat 132660
atatacacac acacatacat aatatacata tatacacaca cacaaaggaa gagagagaga 132720
aaaagtgcta aaatgtggat gtggcaaaac atcaaaaact ggtgaatctg ggtaaaaatt 132780
tcaaatgtac aaaaaacttg caaaatgcca tataattctg gcaacatttc tgtaaatttg 132840
aaaatatttc aaaagaaaaa agaaaggacg ggcagggtgg tttgtgcctg taatcccagc 132900
cctttaggaa gcggaggcag gaggatcact tgagcccagg agctcaagat tacagtgagt 132960
tatgatcctg ccacttcact ccagcctgta caacagggcc aaacaactag cctatgtttt 133020
aaaaatgtca atgtcgtcaa aaaaagcaag ggcagaagga aggaaggag gaagagggag 133080
aaggggaggg ggagaggaag gaaaagggag acaggaagaa agaaggggaa gctgaagaaa 133140
cgttcaagat tagagaagac aaacatgaga gctaaatgcg atgtgtgatc ctggattgga 133200
tgttaaattg gcattaaaaa aaactgctat aaaatacatt acttggctgg gcatggtggc 133260
tcacgcctgt aatcccagca ctttgggagg ccgaggtggg tggatcacga tgtcaggagt 133320
tcaagaccag cctggccaac atggtgaaac tccatctcta cttaaaatat aaaaattagc 133380
taggcgtggt ggcacgtgcc tgtaatccca gctactcagg aggctgaggc aggagaatcg 133440
cttgaaccca ggagacagaa gttgcagtga gctgtgactg tggcactgca ctccagcctg 133500
ggggacagag caagactcca tctcagaaaa aaaaaaacaa cattattgga acaagtggtg 133560
aaatttgcaa attgactctt tattatataa tagcattata acaatgctaa atgtttttaa 133620
aagttattct gtagttatgt aagagaatgg ccttgtgctt taaaaaattc atgctaaaat 133680
atttaagggc aaaggatcat gatatgtgca actttaaaat gtttcagata aatagtctgt 133740
gttcgtatgt gtgtctagag agagaaaaaa tatagcaaaa tgttaacaat tgataaatct 133800
gtattaagat ttaccacttt tacaactttt ctgcacgttt gaaatgtttt caaaattaac 133860
ttttttaaaa aatatttttt ctgaggcagg gtctcactct gttgcccagg ctgcagtgca 133920
gtgccaaaat cacagctcac tgcagcctca aattcctcgg ttcaagtgac cctcttaccc 133980
cagcctcccg agtagctggg actacagcca tgtaccacca tacccagcaa catttttat 134040
tttctataga aacaggtctt gctgtgttgc ccaagctggt ctccaactcc tatcctcaag 134100
caatcctccc acctcagcct cccaaagtac tgggattaca agggtgagcc atcatgcatc 134160
gtgcccactg aaaataaaaa aatattttta cagaaccacc tcagatagaa ataatgcctt 134220
ctgaaaacca aaaagcactg atgatagata gtacaaccac tgtgaagagt tttgaggttc 134280
ctcaaaaaac taaaaataga actaccatat gatccaccaa tcccactgct gggtatatac 134340
tcaaaagaaa gaaaatcagt atatcaaaaa ggtagctgca ctcccatgtt taactgaggc 134400
actattcaca atagccaaga tttggaagca acctaagtgt tcaccagtag acaaacagat 134460
aaggaaaatg tggtgcatat acacaaggga ggactattcc gccatataaa aatgagaccc 134520
```

188

```
tgtcacctgc agcaacatgg atagaaacag aggtgattat gttaaatgaa attagccagg 134580
cacaaaaaga caaacttcac ggtctcacgt atttgtggga gctaagaatt aaaacaactg 134640
aattcatgga gtagagagta gaacaacaat ggttacctga ggctagaaag ggcagcggtg 134700
ggggaaaggg gggatggtta atgggcacaa aaatatagtt agaaacaatg aataagatct 134760
agtatttgat agcacaacag ggtgactata gacagcaata attttttttt ttttgagacg 134820
gagtctcaca ctgtggccca ggctggagtg cagtggggca atctcagctc actgcaagct 134880
ccgcctcctg ggttctcgcc attctcctgc ctcagcctcc tgagtagctg ggactacagg 134940
cgcgtgccac tacgcctaat tttttgtatt tttagtagag acagggtttc accatgttag 135000
ccaggatggt ctcgatctcc tgaccttgtg atccacctgc ctcggcctcc caaagtgctg 135060
ggattacagg tgtgagctac ctcacccggc caacagcaat aatttattgt acattttaaa 135120
ataactaaaa gagtataatt ggattgtttg aaacataaag gataaatgtt tgaggtgaca 135180
gatatccccc caaaaaatca atgaaagaaa ttacagacac aaataaatgg aaaaatatcc 135240
tttgttcatt gaatggaaaa attaatgttg ttaaaatgat catattacta aagtgatcta 135300
cagattccat gcaatcccta tccaaattcc aatgacattt ttcataaaaa tagaaaaaat 135360
aatcctaaag tccatatgaa aacacaaaag accctgaata gccaaaacaa tcttgaatga 135420
aaagaacaca tcacgacctg atttcaaaat atactgcaaa gctacagcaa tcaaaatagc 135480
atggtactgc tatgaaaaca gacacataga ccaatggaac agaatagaga gcccagaaat 135540
aaatccacac atttatagtc aattgctctt ccacaaaagt actgagaaca tacaacggga 135600
aaaagagagt cttttcaata aatggcactg ggaaaactgg atatccacat tcaaaagaat 135660
gaaattagac ctttatctca cacaatatac aaaaatgaat tcaaagtaga ttaaagactt 135720
aaacacaaaa cctgaagctg taaaactact agaagaaaac acaggagaaa agcttcttga 135780
cattggtttg ggcaatgatt ttttggatat gaccctaaaa cacaggcaac aaaagcaaaa 135840
atagacaaat gggattgcat cagactaaaa agctgccgca gcctgggtgc agtgactcgt 135900
gcctgtaatc ccagcacttt gggaggccaa ggtgggggca tcacttgagg tcaggagttt 135960
aggaccagcc tggccaacat ggtgaaacct catctctact agaaatacaa aaaattagcc 136020
aggcatggtg gcacacgcct gtagtcccag ctacttggga ggctgaggca ggagaatcgc 136080
ttgatcctgg gaagcagtgg ttgcagtgag ccgagatcgc acaattgcac tccagcctgg 136140
gcaacagagc aagactccat ctcaaaaaaa taaataaaa ataaaaagct gctgcacagc 136200
aaaggaaaca atcaacagtg aagagacaac ctacagaatg ggagaaaata tttgcaaacc 136260
atacatctga taagggggtta atagccgaaa tatataagaa ctcaactcaa cagcaaggaa 136320
actaataacc caatttaaaa atgagcaaag gacctgaaca gatatttctc aaaaaatatg 136380
caaaaatggc caacaagtat atacatatac aaaaaaatgc tcaacttcgc taatcattag 136440
gaaaatgcaa attaaaacca caatgaaata tcatctcaca cctgttagaa tagccattat 136500
caaaaagaaa acaaatgttg atgtagacgt aaaaaaaagc aaaccttata tattgttgtt 136560
gtttgagacg gagtttcgct cttgttgccc agactggagt gcaatagtgc aatctcagct 136620
caccgcaacc tccacctccc gggttcaagc gattctcctg cctcagcctc ccgagtagct 136680
ggaactggga ctacaggcat gtgccaccac gcctggctaa ttttgtattt ttagtagaga 136740
cagggtttct ccatgttggt caggctggtc tcgaattccc aacctctggt aatccgcctg 136800
cctcagcctc ctaaagtgct gggattacag gcgtgagcta ccatgcccag cctatattgt 136860
tgataagaat gggacatggc acaatcatta tggaaaaaca gtatggagac tcctcaaaaa 136920
attaaaaata gaactaccat atgacccagc aatcgcacgt ctgtagtatt tacccaaagg 136980
aaatgaaatc agcatgttaa agatatatct gcactctctt gttcattgca gtgctattta 137040
caatagccaa aatatgaaat caacccgagt gtctatcaag ggatgcatga attttatttta 137100
ttttttgaga cagagtctcg ctctgtcatc caggctggag tgcagtgaca caatctcagc 137160
tcactgcaac ctctgcctcc agggttcaaa tgattctcat gtttcagcta cctgaatagc 137220
tgggattaca gacacgtgcc accatgccca gctaattttt ttgctatttt tagtagagac 137280
agggtttcac aatgttggcc aggctggtct ggaactcctg acctcaggtg atctgcctgc 137340
```

189

```
ctcagccgcc caaagtgctg ggattacagg cgtgagccag tgtgtctgtc tgggatgcat 137400
gaatttttaa aattggaata ctattcagcc ttataaaaaa gaaggaaaat tggcaaggcg 137460
cagtggctca cgcctgtatc ccagcactgt gggaggccga ggtgggcgga tcacaaggtc 137520
aggagtttga gaccagcctg gccaacatgg tgaaaccgtc tctactaaaa atacaaaaat 137580
tagccaggca tggtggtggg tgcctgtaat cccagctact caggaggctg aggcaggaga 137640
atcgcttgaa cccaggcggc ggaggttgca gtgagctgag atcgtgtcac cgcactccag 137700
cctgggcgac agagtgagac tttgtctcaa aaagaaggaa atcttatcat ttgtaacaac 137760
aaggatgaac ctagagacat tatgctaagt gaaataagcc aggcacagaa agacaaatac 137820
tgcattgatc tcacttatat gtagaatcta aataagtcaa actcataaaa gtagagaata 137880
gaatggtggt tgtgaggact gggggtatgg ggagatgtta gtcaaagggt accaagttgc 137940
agttaggatc aattagttcc ggagatctgc tgtacagcat ggtgactata attaatgtat 138000
atttataaat tgctaagaga ttgatcttaa atgttctcac cacacacaca cacaaataag 138060
tatgtgaggt gatggatgtg ttaattcatt tgatttaatc attttacaat gtgtacataa 138120
aacatcatgt cataccctgt aaatatacac aacttttatt tatcagttac acactaataa 138180
agctgggata aagaaaagaa gaaataaata gtatgctgtt tttttttttt tttttttttga 138240
gacagagtct gtgttgccca ggctggagtg caatggtgtg atcttggctc actgcaacct 138300
ccacctccca ggttcaagtg attctcctgc ctcagcctcg gagtagctgg gattacaggc 138360
acctgccatc atgcccagct aatttttgta tttttgtaga gatggggctt caccatgttg 138420
gccaggctgg tcttgaactc ctgacctcag gtgatctgcc cgccttggcc tcccaaagtg 138480
ctggattat aggcataagc caccgagccc ggctgaggaa ttccttcttt tttaaggcaa 138540
tagtatttgt cttacaccgg aaaaaaaaaa agcacaaata ttaaattcta gcttgctttt 138600
caaaaaataa aaaagaacta atgctgcttg gtttaagctg ctgtaaatgt ttttacttt 138660
actataaaaa gcctggattg agttgtaatt attggtttaa gcatttgtct tattctatta 138720
gactgacagc ttcttgatgc aagaacttaa attgcctttt ggaattgaat agtgagacaa 138780
gtatcctaat tcagggcagt attattttcc tggcatggca ttattagagt actaatatgc 138840
tacaatttag gatcatagta aacaaggctg gacattcttt tttttttttt ttttaagagg 138900
tagggtcggg tcttgctttg tcactcaagc tggaatgcag tggcatgatc atagctcact 138960
gcagccttga actcctgggc tcaagcgatc ctcctgcata gatgggacta catgagtgcc 139020
tcacgacacc tagctatgtt tagtttttttg tagaaacagg gtctccctgt gttgcccagg 139080
ctgctcttga atgcctgccc tcaatgaatc ctcccacctt ggcctcccaa agtgctggaa 139140
ttataagcat gagccaccag actggacatt cttttttttg agacagcatc ttgctctgtc 139200
accaggctgg agtgtagtgg cacgatcttg gttcactgta acctctgcct cccaggttca 139260
agcgattctc ccgccttagc ctcccgagta gctgggacta caggcacgcg ccaccacact 139320
cagataattt ttgtattttt agtagagacg ggatttcacc atgttagcca ggatggtctc 139380
gatctcttga cctcgtgatc tgcccgcctc agcctcccaa agtgctggga taacaggcgt 139440
gaaccggcat gcctggccta gactggacat tcttaaaacg ggaacaagaa tagaaaatga 139500
ccctgtggtt tggagcatag aacagtgctg gcattaatct actcaatgta ctgttctgtg 139560
tctttacaga accttctgca ggcaagactg gaaagtccac ccctggtccc aggcagatgc 139620
acaaagaagc tggtataagg gagaggcctc atgaaagttg gagctgaatt tgccattgat 139680
gcctaggatt gcaacccctg gtatttgttt tatcacttcc actacacaca gtgcaggagg 139740
gcagcccatc cttagttggc cagaggtttt actttaaaac ccatgggcta agacaccaaa 139800
cagttggaac atataggga aatcatgctc ttcccttctc cccatgcttg ttttgatcaa 139860
gaagctagga aactttctct tctccacagt attgaagcga tggcatctgt cttagtccat 139920
ttgtgttgct acaaaggctg ggtaattaat ttataaagaa aaaaaggttt atttggctcg 139980
tggttctgca ggctgcacaa aaagcatgcc accagcatct gcatctggtg agggtctcag 140040
gctgctttca ctcatggggg aagttgaagg ggagccagcg tgtgcagaga tcacatggag 140100
agagaaaaag caaagagaga ggggagaggg gtgccaggct cttttaaca ccagttctct 140160
cagaaactaa tagagtgaga actcacccac tccttctacc attaatctat tcctaaatga 140220
```

190

```
tccacccccca ttacccaagc atctctcatt aggcttcacc tccaacattg ggaatcgaat 140280
ttcaacatga gatttggagg ggacagacat ccaaactatc tcagcatcca tccttctctc 140340
tgcgtactct gctgacttac tcttccttgt agaagaaaac aattcagtgt gtgatcgatg 140400
agactaggtg cagggtcact gcacactcac cactcaggct gcctttgaat tcctcttttg 140460
tagatgtctg cccacaggcc acgtgccttc ttctctcctc cattcagcag cagatacagc 140520
agtttccggc gactatgcct atgaccaagg tcaagttcaa ttcatggaga aagaaatgag 140580
aagcctgttt tggccttgga tccaagccac cttctccagg ccagcttcag tagcaatcaa 140640
gctgacattt taaacccagt ctgattcctg tgactgtacc atttggttca ggactcaaaa 140700
gagagaagaa gatgaaggac ctctcagaat cccaacagta ttttactaat ctttggatcc 140760
cagcacctct cctggtgctt gttctattac aagccctcaa taaattttgt tgtcttgaac 140820
tcagagtgtg cagcacacag gcagatagct gctcacagct attattgggg tggttgtgtt 140880
ttttttcgt aacagaacag agtgattttt gatgctttc tagtttgtca gagggctctg 140940
aggctataca gaagcagctt tagtgaacag aggagagcga gctgtgtctt tgtgcttcac 141000
aatgattgca atgccagaga gtgatgtccc aggggagctg tcaaacagct tgacagcaat 141060
tctagcaaga agtggtagaa acacaatttt gcaataatga tcatacgttt tttgaaattt 141120
tcctttatcc ttgaaatgcc ttgtgttgtc gaaaatctat tcattactgt tcagtcatct 141180
gtagcgagtc atccctttag gtctctgtac tcggaagtta cagccctggg agtattttgg 141240
cagagagaca aaggctccta ggcacagtgg gggagtcaga aaggtacaag taaatagcgg 141300
ctccaaggag ttagattttt aaaaaaataa taaaaggacg ggaagtgaca agaaatcatc 141360
ttcctcaaag cggctttagt tttctaaaag caggcaccat agctctttga tatttttacc 141420
atgcacatct ctggtgcttt catttttcttt ttcctctaat cccttccatg catttccttc 141480
attaattatc ccttttctct ccaggatgtt caacttctcc ctgtctctac tgcctccttc 141540
acctcgacct ataaacatgt acaagtttct tacatcctca gaaacttcca gctaccctca 141600
aatgctcact ctcttccctt ctctttgtag ccaagagacg agcctattcc agtgctaccc 141660
aaagcatggt ctgcagacca gcagcaccag catcccaggg aagccagatt tgaaatgcag 141720
ttctcacgct cacccagacc tactgaatcc gaatctctgt gggtggggtc caagaatctg 141780
tttcaacaca ctctccaggt gatgcttagg cacacggggg tctgagaagc actgcctcta 141840
cttcctgtct ctggtcacca ctttgggcga tcttcctctg tcccttaag gtgtgcacct 141900
tccccagggc tctgtcctgg gccttggctt cattgcactc aatcatttcc ctacgtgatc 141960
tcatccacca aaggttgatt tggttatttg tgtgttttaa cataggttta taccagtgat 142020
tctcaaattt atgtctctat cccagacctc tttctctgag ccctaagaat gtccagttgc 142080
tttctggact tgtttaccaa aatgttgcac agttctctaa actatgtcta aaaccaactt 142140
agtatctcct aaacccactc tgcatcaatg tcaataatct gggttgtgtg acagctttgc 142200
caccccccttg gcgcctgcca ccctgggatc cagctacacc cactgccttt atgcttccca 142260
gttcactgac tgaagtgcac accacaaggt ctggcctata gacaagagca atcacagagc 142320
tcttcaagga tgccagggca cccctcatat atttatttct cacattcttg atgaaatgta 142380
tgccttctag accctcccag ggtgggtgag taggcctcaa atgacaattg cactgtaact 142440
gccagtccct taagtctttg aatcccttcc tccacattaa accaagacat gtccaccatc 142500
tccagttcac tcacgtggac caccttgag tctatgtttc agccagccaa ccaaccaatc 142560
agattcaaca cttccttttt tcttcttttt tttttttttt ttttgagatg gagtctcact 142620
ctgtcaccca ggctggagag cagtggcatg atcttggctc actgcaacct ccgcctccca 142680
ggttcaagcg attctccagc ctcagcctcc caagcagctg ggattacagg cgtgcaccac 142740
cgcacccagc taattttgt attttagta gagatggggt ttcaccatgt tggtcaggct 142800
ggtctcgaac tcctgacctc aagtgatctg accgccttgg cctcccaaag tgctgggatt 142860
acaggcatga gctgccgcgc ccagccagat tcaacatttt ctaacgccca aagctgcaac 142920
gctaaatgga gaatccctgc ttagtgagcc catgtcaaaa cattcagccc catccaactt 142980
tatgttcctt ccacctactg ggtgaagtgt cagagcccca gcatcagaaa gtggtcagct 143040
```

191

```
catgggtagt agggtagtaa gaagaattta ctgacaacag tataggttag aaaaagacag 143100
ttttattaga tagaagagtg tagctgggca ctactgcaag agaggaccga gcgtgctgca 143160
gtggactttt ccttaggggt atttatgaat cttaaagagg gagcttaacg gtaattggac 143220
tatactgacc acagaggtca tgatacatga ttacatttgt agacattttg gtgccttgat 143280
gtcagcaagt gttgcacgat gagtttcgac atgcatgcat tctggagatg tatagaaatt 143340
ctagttattt atacattttg gagaaagcag cccataccag atgcctgctt tagatcatag 143400
ggaatctctt atttctaaat ccctcagctg aggagtttgg cctctggatg gactgtttgg 143460
tgcctctccc aggtgatctt tgctctcctc accaccatta tcccacactc atagtatcca 143520
ttcccataca cattccctga atttctgtct gtagaaattt aaaaagtcaa gtagttcagt 143580
ggagtgcagc acacctctta tgggccagtc acacagtgta cctcatcttc aggggctgct 143640
ggactgaagt ctaacaaaga ggagtggtgg ggtgggtcct gaggagttca acattgtgtt 143700
gctcagcacc tgcctcaggg gaggccatta ctatttcctc aggcaatgca ggcttcatcc 143760
tctcagaggt ggaaagacca ataccactga gggttgggaa tgccactgtt gctggggttg 143820
ttgggaagca aaggtgggag tgctccttca ctgataaagg agacatcaga atttaggggc 143880
tcaatgtcct cagctttatc aaagttttcc caaacatccc catcccaact tgcaagatcc 143940
cattctttcc caattaatgc tctcacttta actgcacata gcctgcaaag ctgtgagttc 144000
aacttgcgtt gtaattcagc cacttgcagg atgaggttct gcatttgact ttcagcaatt 144060
tccgcccttc tgtacagtaa ataaaggtct ccctcagggc acacataaaa gttcctaggt 144120
catttttgtg gtgcatgaac taggaatgtg aatccctgac ctcatccttt ccttccacca 144180
gcatgacatt agggttccaa ccagcatcat tatattcatt cattttccaa aatgttcgaa 144240
agtatcatat ataagccagg catggtggct cacacctgta atcccagcat tttgggaggc 144300
caaagtggga ggatcacttg agcccaggag tttgagaaca gcctgggcca catggcaaga 144360
cccttgtctc taaaaaaaaa aagctgggca aagtggcaca tacctgtagt cccagctact 144420
caggaagctg atgtgggagg atcacttgag cctaagcagt caaggctgca gtgagccatg 144480
attgtgctac tgcactccag ctggggtgac agagtaagac tctacctcag aaaacaaaca 144540
aacaaacaaa caaaaggtat catatataac attactgagc tcattgattc tatagttggt 144600
tgattaggag tatccaacac agtattctgt gtatctctac aaacagctca cgttatggac 144660
tattagcact ctttttacta ctggaaatac agtcattagt gcctttaaat ctaatcagat 144720
tagagagcca attctagaaa ccccagaacc agttcagaaa attcatcctt aaaattctgc 144780
tcctctagaa gcactctcag tgccaaaatc tatacaaagt tttccagaga aacagaacaa 144840
gaaggagata tctctatata tagatagaca tagagatatc tccagatatc tccttctggt 144900
cctgtatata gatagataca gagagctagt ctcatccaca aacactctca aagacacaat 144960
gaaaaagaga gagggattga ttaattgtaa ggaattgact cacacgatta tggatagtaa 145020
gtcccatgac cagcctttct gtaagccaga gacccaggaa agctcatggt ataattaagt 145080
ctgcatccaa agtcctgaga accagggaac caacggtgtg taaatcccag tctggagatg 145140
ttccagctca agcaggcagg caggaaacca aaacagggca aactccttct tcctctgcct 145200
tttgttctct tcaggccctc catcgatcag atgatgcctg ctcacattag ggaaggcaat 145260
ctactttaca gaatccaatg tcaatcttag ccagaaacac ccgcaaagac acatcaggaa 145320
ataatgttta ttctgggtat cccatggcta gtcaagttga cagataaaat taaccatttc 145380
atgggcatat gactaaactg agcaaccaca cagtgatgaa aatgcctgct aaaaggaaga 145440
gtgtcatcta tacagttttg aagttctcta gaattctgct tactctatta gtccattttc 145500
aggttgctga taaagacata cccaagactg ggtaatttat aaagaaagag gtttaatgga 145560
ctcacagttc catgtggctg aggaggcctc acaatcgtgg tggaaggcta aaggcacatc 145620
ttacatggcc acaggcaaga gcaaatgaga gtttgtgcag ggaaactccc ctttataaaa 145680
ccatcagatc tctctatctc aagaactgca cagggaagac ccaccccccg attcaattac 145740
ctcccaccgg gtccctccca tgacacgtga gaattgtgga agccacaatt caagatgaga 145800
tttggatggg gacacagcca aaccatatcg gttacctttc taggtttttag gtcaatttca 145860
agatgcatac atcaccacca agcaactaca cagcaaatat actcagtccg tgattctgaa 145920
```

192

```
acatgggcat gcatcagagt cacctgggtg gcttgttaca atgcagattt ctagggtcca 145980
cccctagagt ttctgattta gtcggttttg gatgggacct gagatttcct agtgctaaca 146040
aatccccagg tgatattgat gctgatcaaa ggaatacact ttgagaacca gtaaattcaa 146100
gagtacaatt gctacacctg acaatcttca cagccaagag aagctaatct gatctccctt 146160
aataaaacca tattattttt tttctttctc ccccgcccc cccaccccga gaaggagtct 146220
cgctcggttg cccagactgg agtgcagtgg cacgatctcg gctcactgca agctccgcct 146280
cctggtttca tgccattctc ctgcctcagc ctcccgagta gctgggacta taggtgccca 146340
ccaccatgcc cggctaattt ttttgtattt ttagtagaga cagggtttca ccatgttagc 146400
caggatggtc tcgatctcct gacctcacgt gatccaccca ccttggcctc ccaaactgct 146460
gggattacag gcgtgcacca aacgctcctg gccagaaaac catattctaa ggaaagcaaa 146520
cagttatcac aattacacac ttcagcaacc tccatctcct ctttgctact taagggatga 146580
aaacatcaac tgtgtatgta aaagttaaat gttgggaaag cggaggaaca taagtttttg 146640
ttttgtttgt agagacaggg ttctcattat gttacccagc cttgtctcaa actcctgggc 146700
tcaagcactt tacctgcctt agcctcccaa atgagttcta acactttaaa ttctgttcat 146760
ctctgaaaaa atcactgcaa ggctgaattc accgtacgat aaagaaatca tgcccacaat 146820
gttattttc tagggttccc tttccctcac aaagtggtgc cagtggaaag cagcatttca 146880
gtaactccta cctttatcct agtttagtga ctgatgcatt aacatggggt gagtttgatt 146940
aaagggggca gccaacattt acaggtacaa ttaaaatagg agctatgggc tgggcatgga 147000
ggctcatgcc tgtaatccca gcactttggg aggcgaaagc aggtgaccac ctgaggtcag 147060
gagttcaaga ccagcctggc caacatggtg aaaccccatc tctactaaaa acacaaaaat 147120
tagccaggca tggtggcaca cacctgtaat ctcacctact ccagaggttg aagcacaaga 147180
atcgcttgaa ctcaggaggc agaggttgcc gaaatcttga gaggttgcgg aggagagagt 147240
gagcagagat cgtgacactg cactccagcc taggcaacag agagagagtc ggtctcaaaa 147300
aaaaaaaaaa aaaaacaaa aaacaaaaca taaaaataaa attaggccag gcacagtggc 147360
tcatgcctgt aatcccagca ctttgggagg ccaaggtggg catatcacct gaggtcagga 147420
gttcaagact agcctagcca acatggtgaa actccgtctc tactaaaaat acaaaaaatt 147480
agctgggcgt ggtagcacac acctgtaatc ccaactactg gcgaggcaga ggcaggagaa 147540
tcgcttcaac ccgggaggcg gaggctgcag tgagccaaga ttgtgccact gcactccagc 147600
ctaggtgaca gagcaagact ccgtctcaaa aaataaatta attaaaaaaa aaaaacagaa 147660
gctatggtgc tatcaggaaa gggagtaaag atttgctctc attctattct ctcctttatg 147720
tttcagacag ttgaagggac tacccaaata ccaaaatgat attgaggagg aggcactttg 147780
tgatggctaa ttttatgtgt cagcttgatt gggtcaggag tgtccaaaca ttgggtcaga 147840
cgttattcag gtgtctgggg atgacattaa cattggaatc gagagactga gtaaagcctg 147900
ctgtgcttgg gcctcatcca aacagttgaa gacctgacta gaacaaaatg gctgagtatg 147960
aaagaactcc tgcctcactg ttgagcatca cagttgacat cagctgtttc ctgcctttag 148020
acttgaactg agacatcgct tcttccttct gacttgaact gagacatcac ctcttccttc 148080
agacttgcac ggacacatca gctcttcttg agtctcaagc ctgctggttt tcgaactaga 148140
atttacatca ccagcccttc tgggtctcca gccatccaac tgcaaatcct gggacttgtc 148200
agccttcata attgtgtgag tcaattctat actaaatctt tatacactca catactctgt 148260
tggatctgtt tctctggcaa tcccttaata cagaactgga ccaaaaattc cttctaaatc 148320
actgtttgct gccttaattt ctacctcact aaaaattagc actattccta gcaacctgtc 148380
tcaaagtccc ccatctcccc ccaacctttt tttttttttt ttttttttgag acagagtctc 148440
actctgctgc ctaagctgga gtgcagtggt gcaatctcag ctcactgcaa tctctgcctc 148500
cctggctcaa gcgatccttc tgcctcagct ccccaagtag ctgggaccac aggcacacaa 148560
catcatgccc agctagtttt tgtattttg gtcgagacgg ggttttgcca tgttgcccag 148620
gttgctctca aactcctggg ctcaggtgat ccacctgtat cagcctccca aagtgctcag 148680
atcacaggca taagccactg cacccggcct caaagtccct ttaaaggaca tctgcaacct 148740
```

193

```
ggcatctcag tacaggtgat tcagattcaa tgactcagtg gtgatttcag ccctgttgtg 148800
ccatcagccc tgggagtgaa gccaaggttg aggcttgctg aaagtggaac gcatgttcat 148860
ttagacaccc attgtaatat tctgggtgat gctaattttt cttgcttaat atcagagaac 148920
agagaagtta gagatgatat caaaaatgga aacaacatgt acagtcccca taatttgtga 148980
attatgggga cagattccat ttctgtcttt tgtcttgagc ttctatgtga gctactacaa 149040
aaatgacagg gctttctgcc ctccatttcc cccttagttt gcacaacaca cacaccccct 149100
ctcaaacttc tgaaagctct cagacatact tttgaaagta aagaggctat agaggacata 149160
tcaatttatc taatagagta atagcattat gcaggaaatg gtaacttgaa gagaagcatt 149220
tgataggcat gaaagagcag caaagctgca tagcattaac accccactcc actttaagta 149280
ctgatgtagg taactgctgc aataattatg ccattaagaa agagtgttcc aatggccttg 149340
atacatgcta ccatcggaat aaagttagga cattttcctt atagttagtg cagtgcgaat 149400
tgaagaagac caagaaatgc ttttcagagt aagagaggta ccataaaggg cctcagagat 149460
ttgcttctat caggccaggc acagtgactt atgcctgtaa tcccagtatt ttgggaggcc 149520
aaggcaggtg gatcacttaa ggtcaagagt ttgagaccag cctggccaac atggtgaaac 149580
cctgcctcta ctaaaaatac aaaaattagc tgggcatggt ggcacacacc tgtagtccca 149640
gctactcagg aggctgaggc aggagaattg cttgaaccca ggagacggag gttgcagtga 149700
gctgagatca tgccaatgca ctccagcctg ggcaacacag taagactctg tctcaaaaaa 149760
aaaaaaaaaa gagattctat caaaggaggc aggggtatgc tattggttac tggtgcatat 149820
tagatgcttg ccagatgcca agcctaggta aacttgtaca ctagccatga tatgagaagt 149880
atgttggggc tgatgctggc ttcaggagat ctacatggtg tgagtctgga tcaataaaat 149940
gtgaaaatta atggtagctt ccatttagtg aataataaca tcaatagtta acaactctgg 150000
gctaggcaca gtggctcacg cctgtaatct cagcattttg ggaagccgag gcaggcagat 150060
caactgaggt cacaagttcg agaccatcct ggccaacatg gggaaacccc gtctctacta 150120
aaaatacaaa aattagccag gcatggtggt gggcactgtg gctgtaatcc cagctactgg 150180
tgaggctgag gcaggagaat tgcttgaacc tgggacgcgg aggttgcagt gagccgagat 150240
tgcaccactg cactccagcc tgggtgacag agtgagactc tgtctcaaaa aaaaaaaaaa 150300
aaaaaaaaaa agtaacaact ctggaaagaa agtattcttt gtcttttctt ttttcttttc 150360
tttttttttt ttttttgaga caggacctca tattttgttg gagtgcactg gtgcaatcat 150420
acctcactgc agccttgaac tcctgggctc gagcaatcct ctcacgtcag cctcacaagt 150480
agctgccact acaagtgcat gccaccatgc ccgaataatt ttttcagttt tattttgtaa 150540
agacaatgtc tcagcatctt gcccaggctg gtcttgaact cctggactca agagattctc 150600
ccacctcaat cccccaaagt gctaggatta caggcgtgag tcactgagct tgcccaggct 150660
gcttttgaac tcctagacta aagagattct gctgcctcaa ttccccaaag tgttgggatg 150720
acaggtgtga gccaccacgc ccagccaagg gaagaaaata ttcttttttt tttttttata 150780
ctttaatttc tagggtacat gtgcacaatg tgcaggtttg ttacatatgt atacatgtgc 150840
catgttggtg tgctgcaccc attaactcgt catttacatt aggtatatct cctaatgctg 150900
tccctccccc ctcccccac accaagggaa gaaatattc ttaagtgacc tgcccaaagt 150960
catacagcta ataagtggca gagacaagat ctgaacctaa gtgcttctga ttccaaagcc 151020
tgggcttaaa cacaatttga ttctgcttgc caaagcatta cagctgagta agctttaagg 151080
aaacctcacc aatcggaacc atgcaaaata aagaaatatc agaggcctga gctatcaagt 151140
ccagtgagga gggtagccac ttggccaaga ggcccagtat tgaacagaaa tattcacagt 151200
accttgaatg aaggaggggc caacagtgac tcctggtcct tgaccaaact tgagtcaggc 151260
tcctctgaat gctcttcttg accaggcctc atccttggcc tgctgaatct ggttctgcaa 151320
gaatccccca cccttgttac tttaccaagt tccttgcatt acttttccat ccactggccc 151380
ctgcaccttg tccattgtct acaaatcccc agctgccact gttatattca gggttgagtc 151440
ttgaccccca atgcaatagt cttgaaaaaa gttttctttg cctacttaac ttgttcagcg 151500
caattttct ctgacaggta aacaatgagg gagctccatt agcacaacca gagtctttca 151560
tccttgccgc cccagaggat ctggtgtctg ggtcaacaga ctgaccagca caggaagctc 151620
```

194

```
ccacaccttc aagttgagtc tgccagagga ctctccaggt tgcattgctg tggggacctt 151680
tatgcaaggt aaggagacaa accagggagt cgaaggcagg aggagaggac tggaatacaa 151740
ttttaagaaa ggagtggctg gggctgggcg tggtggctca tgcctgtaat cccagcgctc 151800
tgagaggccg aggcaggcag atcacctgag gtcaggagtt cgagaccagc ctggccaaca 151860
tggtgaaacc ccatctctac taataataca aaattagctg ggtgtggtgg catgtgcctg 151920
taatcccagc tactggggag gctgaggcac aagaatcact tgaacccagg aggcgggggt 151980
tgtagtgagc caagatcacg ccactgcact ccagcctggg cgacagagtg aaactctgtc 152040
tcaaataaaa aaaagaaag aaaagaaaag agtggctggg cgtaagcacg cctatagtcc 152100
cagcactttg ggaggccaag gtgggaggat tgcttaagtc caggagtttg agaccagcct 152160
gggcaacata gtgagactcc atcaaaaaaa attagccagg cttggtggta cacgcccatg 152220
gtcccagcta ttcaggaggc tgaggcagga ggatcacttg agcccagttg tttgagaatg 152280
taggaagcca tgatcatgcc actgcagtcc agcctgggtg acagagtgag acattgtcta 152340
aaaacaaaaa gaaagaagga aggaaggaaa agaaaagaaa agaaaagaga cagcaagaaa 152400
gcaagaaaga accttccgga gtttaaactg atgcactgag tacctaagat ctctctcatc 152460
tcccattcaa ggacccattg aaatgatgaa aaaggcattt tgaaaaagag tgaaataata 152520
agaggcgcaa aaagaaaggc tgccatcagc aggcaagaaa tcttaaaaac tcctggaggg 152580
cagaaagcat taggatgaga ttgacaaaga agcagacaag aaaaccacag attcaaacgc 152640
caccaggaag gccagatctt gaaaagaagt ccatggaagc ttctaactgg atgacgccag 152700
acagaaggca cagaagtgca ccatggcaat cattaggata attcattaaa gctgggagag 152760
ttgggactgc cagtgtctta aacacattca gcttttgccc tccagctaaa catagaaaac 152820
ctatccagaa aagaataaaa aagcgtactt ggtaattaag gtatgattac agggcataag 152880
aaaaaaaatc agatggcagg actgccttcc ttagaatgta cacaagtagg acaggcacag 152940
tggctcatgc ctgtaatccc agcactttgg gaggttgaga tggacggatt gcccgagccc 153000
aggagtttga gccatgggca acatggtgag accgcatctc tacaagaaat acaaaaatta 153060
gcttggtgtg gtgccatgtg cctgtagtcc caactacttg ggaggctgag gtgggaggat 153120
cacttgagcc caggagattg aggctgtagt gagccatgac cacactccag ccaggctgac 153180
agagcaagac cctgtctcaa aaaaaaaaaa aaaaaaaaag taaacaagtg acgactgagc 153240
ttgagatatg aaagtaaagg tggccagacg tggtggctca cgcctataac cccaggactt 153300
tgggacgcct aggtgggtgg atcacctgag gtcaggagtt tgagaccagc ctggctaaca 153360
tggcaaaacc ccgtctctac taaaaataca aaaatgagtc aggcatggtg gtggcaggca 153420
actgtaatct cagctactcg ggaggctgag gcatgagaat cactctaacc tgggaggtgg 153480
agcctgcagt gaactgatgt cacaccatcg caccccagtc tgggcgatag agtgagatac 153540
cctctcaaaa aaaaaaaaaa aaaaaaaaaa aaaagtaaag gaaaactttc agaataaaaa 153600
ggaaacagac aaaaataggt aaatgtgaga gaaaaggctc aagggtgata gagtcaggta 153660
gtccaatatt cctttcatag gaattccaaa ggagacaaag aaggaagggg aggaaatcat 153720
caaagatatg agagaaaaag accctgagct gaagaggaac tcatcttcag attacaatgt 153780
ccactgactg ctgtacagag tgaattaaaa aagacctaat ggtgttgcat tcttgtgaaa 153840
tttcagaacg ctgggcaatt ttgaaagctt ccggggggag atgtatataa aaaggaaagg 153900
aaagggaatt aaactgccat caaatttcat caacaatact ggttgctgga agacaatgga 153960
acaatatctt caaatgcctg gggaaaggaa tatcttgaac tctggattct ataaagaatc 154020
atccgacaca gttcaagaat caatatgaaa aaaaatattg agacctgtca aaactcacat 154080
tgtttaccac cactcattcc acgtgaaaaa agtactttag gtgtttgctt actcaaaatg 154140
aaaaaagacc ccagaggccg gatgcagtgg ctcacgtctg tgagccatga tcacgtcact 154200
tcactccagc ctgggtgaca cagcaagacc ctgtctcaaa caaacaaaca aacaaacaaa 154260
caaagatgga aagaaagatt ctgtctctgc ccatgcactc accaagggaa ggccacatgg 154320
gcacacaatg acaggcagcc acctgcaagc cagggagagg gtccctacca gaatgtgacc 154380
atgctggcac cctgatccca gacttccatc ctccagaatg gtgagaaaat aaatgccggc 154440
```

195

```
tgttgaagcc acccagcctg ctgtggtatt ttgttagggc agcccaagca gaccatgaca 154500
gcccgccaaa tccgggtctt tctctctgct cattctgtaa cccactgcct gtcaactgtg 154560
tcttcaccaa tagtcattcc gtcactggtg aagaaggtgt cacctggtca gggcccacgt 154620
gtattttcaa aagataaaga gacagcaatg ttttctcact tattttcttc ctcttttccc 154680
aggagtctat tcacttcgta acgcctgtct aactgagcag ccaaatttag cctgccgcca 154740
gcaatggcag cctcctcagc cctgccccag agaggaaaac tgagagacac cagcctctgc 154800
ctgaaactgt cttgctgagg ggaggtttga gaacgctgtc ttgtaaagtg gaagagatta 154860
ggggtttcaa agaatagtgg tcttcaggcc aggcacagtg gctcacacct gtaattccag 154920
cactttggga ggctgaggtg ggcggatcac ttgaggtcag gagttcgaga ccagcctggc 154980
caacatggtg aaaccctcgtc tctactaaaa atttaaaatt tagctgggtg tggtggtgtg 155040
cacctgtaat tctagctact caggaggctg agacaggaga attgcttgaa cccaggaggt 155100
ggaggttgcg gtgagccaag atcacgccac tgtactctag cgtggcgaca cagcgagaca 155160
ccatcacaaa taaaaataaa agaataatgg tcttcaaatg gaggtataag aacacttcct 155220
cttcagtaca agggcaccaa cagtttgaaa ggaattgatt tccaggcccg cttttctgca 155280
actgatctgc ctgagccctt gcctgcgagg gaggggcagg gtcttacttt ccccagtagc 155340
ccttttctac tttataaaaa gaagaggaca ccccttaccc atcctaatct taccatggca 155400
tgtttcctgg ggcaccaaac ccaatcctgg tattagtgct gaaccaacat ataaccacaa 155460
ggactgagta aaatttgctt ttgcaaagtc aggggctttc caacatttt cctttccctc 155520
aagcctaagg agatctcatt gaattgcatg tggatagagc attaaaaatt atttttgacg 155580
ataaatcagc atagggtttt tggctcagaa tgagctcaaa gaattaactg atagtacggt 155640
aatacaatta tttccatttc tatctacttt ttaatttttt ggagacaggg tttcactctg 155700
tcttccaggc tagagtgcag tggcacaatc gtggttcact gcagcctcaa acaactgggc 155760
aatggtgcaa tcgcagctca gctcactgca gcctggacct cctgggttca aggagctccc 155820
acctcagcct ccccagtagc tgggaccaca ggcacgtgcc accacgcctg gctaattttt 155880
gtattttta gagacaggat ttcaccatgt tgcccaggct ggtctcgaac ccctggactc 155940
taattatcca cccgccttgg cctcccaaag tgctgggatt acagacgtga accaccaagc 156000
ctggctctac tttttataca aacaggtttc ctctgcagtg tcatggagaa acagaattga 156060
ttctagcagt gagtaggaac caaacctaga cacataaact aactggagaa aaaggccaac 156120
tgtcccatta aggaagatat ttctaactta aatctaactc cctatttaat aggacttatt 156180
cattggaaat acatattgtt gtttttggcca atttgtatta ctactactga tgacaacttc 156240
atcagaagaa atgattaaac gcttgttcaa tggtcacagg aaataaaaat atcaatatag 156300
gtctatactt tttgtgcagt atgatagggt gaccagcaaa agactttcaa ggataaaaat 156360
atatgtgagg aaaagctgtg tgggaagtgg aatggaaatt caaatttaga aaaaaaaatg 156420
atataacatt tcttatgttt caaggagagc ttgtccaggt attattttaa tggatgatgg 156480
caggaatcaa acacgatgag attcctttgt ataccatcaa aaaaaataat aatgtaacag 156540
gtttctgtgc atgcgtaggt tacactcata tatacacata catctataca catatttaag 156600
gacctattat ttaccctcta tagtttatat aagtatatat tttatattgt attatatatt 156660
tatacttttc atatttaata ttgtttatgt aatatgtgaa acaatatgta atatatacat 156720
ttatatttta tcttttattt taatttttt tttgagaagg agtttcactc tgttgcccag 156780
gctggagtgc agtggcgcaa ccttggctca ctgcaacctc tgcctcccgg gttcaagcaa 156840
ttttcctgcc ttagcctcct gagtagctgg gagtacaggt gcctgccacc acaaccagct 156900
aattttttt ttgtattttt agtagaggcg gggtttcacc atgttggcca ggctggtctg 156960
gaactcctga cctcaaatga tccacccacc tcggcctccc aaagtgctgg gattacaggc 157020
atgagccacc tcacctggcc tacatatata atttatataa catacagcct taatatcaat 157080
acatatgtat actatatata tatgtgtgtt tatatacgcc ccaacatata tatattcatg 157140
ttaaggcttt atatttaggt atgtgtattt agatatttt tattatgtat acatatactt 157200
atctattcat atgcatatat gcatttgtat ttatgctaaa gctttatata atacatatat 157260
tgtgtgtata tgtgtgtgtg tatatatata tataaaacat aaagctcata tacataaagc 157320
```

196

```
ctcaacatga atatgctctg attgtgatga gattatacag ctgtatacaa tgaccaaaat 157380
tatcaaatta tacacttcaa attggtagac tttattgtat gtaaacaata gaaacaaaca 157440
atcacacctg taatcccagc actttgggag gctgaggcgg gcggatcacg aagtcaggag 157500
atcgagacca tcctggctaa cacgatgaaa ccccgtctct actaaaaata caaaaaatta 157560
gcctggcgtg gtggcaggca cctgtagtcc cagcgacttg ggaggctgag gcagaagaat 157620
agcgtgaacc cgggaggcgg agcttgcagt gagcagagat cgcgccactg cactccagcc 157680
tgggcaacag agcaagactc tgtctcaaaa aaaaaaaaaa aaaagaaacg aacaaaagag 157740
aggaaaactt tccccattaa aatagcaata gcaaaaaaaa aaaaaaaaaa aaaaaaaaag 157800
ccaaaaatcg gaatagaggg ctatttcctt agcatgggat aagtaagtaa tattgtacgt 157860
gcctatgtga ggcacacaga atagtgagaa tcaaaggcag agagtggagt gggagttgcc 157920
gggggatggg gaatggagag ttagtatttta gtgggtacag agtttcagtt ttacaagatg 157980
aaaagagttc tagagaagga tagtggtgat ggttgcacaa gattatgaat gtatttaata 158040
ccactgaact gtacacttaa aagtgattaa gatgataaat tgtgttatgt atattttaac 158100
acaataaaaa ttgggagtgt gtgtatgtgt atatatatat gtctgtgtgt acacacacac 158160
atatatataa ttgggagtgt gtgtgtatat acagtatgtg tatgtttgta tgagagctta 158220
acgtacatac acttgtgtac atgtctacct aacaactttt tttttttttt ggagacaagg 158280
tctcactgct ctgtcgcccg ggctggagtg ccgcagtgca atcacagctc actgcagcct 158340
caacctccct agctcaagca atcctcccac ctcagccttg taagtagctg gtactacagg 158400
tgtacaccac tacactgggc taattttta aattttctgt agtgatgagg tcttggtatg 158460
ttacccaggc tggtctcaaa ctcctggcct caaccgatct tcctgccttg gcctcccaaa 158520
gcactgggat tacaggcatg agccgctgta cccggcccaa ctttattttt taaactaagt 158580
tgagtgtcaa tattgacaat attctgtaaa acatatcctt acaactattt aaacgtatag 158640
taaaatgttg catgtagatt gtcaacatgc gaggggcat gcaattttac aaagttcttt 158700
caggggatat tcaagccaaa gagtgtgaaa accctggac ccccaggcag aattagacac 158760
aggggagact ccagtacagt ggcaactgag acaacaaaga aacactgagg acattttcac 158820
taccaggata taggcaaacg aaactgcaat gatgtcatgt ttgcatatgt ggcagataca 158880
aaaagcttaa aagcagctct ttgttctctt gctgagtttg gggcaggcac tggcacaaat 158940
tgaggaaagt aagtgacagg accggcagca attagacttg ctgatgttgg ggcgaccctg 159000
gggttgcatc tgggaaaccg acacccggat ccaggataga agctgacata gaagtaagca 159060
aaactgctgt aggccccggt caagggctct cctctcagga ttcctcccat aactacctga 159120
aacaaggatt tggaatacct tgactttgga gagagaaatc gaaatcagtt caactgaact 159180
ctaatcaggc gtgagaatcc tcttgtcatt caagtttaat tggcttaatc tcccaaatga 159240
tactgaaggc agtagtagtt cttatgctcc tagggtgcag tattatatta tttataaatg 159300
cagacacttc aaaagcaata aaacacttgg cccttgctct caataaactt gccctctaac 159360
tgggaggaca gcatccaaat ggaaaaaaaa aaaaatgaag aacagttcaa agcaacatat 159420
aagaagtatg taataatccc ccaagagaaa caaagactgc attgcatact ttcccagtag 159480
aagtacaaat tggcacagca ccccatggag ggaagtgggc cacagagatc agaattacaa 159540
atgagtatct cctttgacct ggtaatttaa cttctgggaa tttatccttc agccgtactt 159600
aggaaataac atatactcta agttactcac tgtagcattg ttcaaaataa caaaagattg 159660
gaaagaaggc aaatatcctt gagtagaaga ctgatgaaat acattgtgct acatacatac 159720
aatggaatat ttcgaaggta taaaagtgca tgaggagggc cgggtgcagt ggctcatgcc 159780
tataatccca gcactttggg aggctgaggt gggtggatca cttgaggttg ggagttcaag 159840
acaagcctga aaaacacaac acaaccccat ctctactaaa aatacaaaaa ttagccaggc 159900
atggtggtgg gcacctgtaa tcccagctac tcaggaggct gaggcagaag aatcacttga 159960
acccaggagg cagaggttgc agtgagctga gattgtgcca ctgcactcca gcctgggcga 160020
cagagcgagc tcaaaaaaag agtgcatgag gaaactttca aggtacagat attttttaaag 160080
tctccaagat aagtgcgggg gcaggggggg aacagcaagg tacagaaaag gtgtataaga 160140
```

197

```
cacttccttt tgtttacaag gaagggaaaa aaagaatata gaatatattt ttatgtgctt 160200
tagtattcac aaataaagtc tagatgaata cacacagaaa tgaaaagctg attacctgga 160260
gtggattagg gagggtgaaa acagggtgga tggggctgag caggagggag acttctgctc 160320
catgaaccat gtgactgtgt tcctactcaa aacaattaag agaataatga aaaaatatcc 160380
cctgctgagg cctgacataa taagcaggaa gttggtttct gagggacccc cccacccacc 160440
gtccggtgtc aagcatatgc cctcagcttt ggctggctct gaacagcagg gaaaatgtga 160500
gagcaggacc acgtggcttc tgcacgggca gccctgtgtc caggcccctg cccagctgct 160560
gagcttcctg cccggtgccc ctgcatcagc cagagtccaa ccccaccctc tcagcctgcc 160620
ctcttgccag cgggctcaga atcagctgtc ctcaccagtt accagaatcc tcaagcagct 160680
ggctttaatt gtgtctatgg gaaggcagaa agaggaaggg aaggtcgatt aagtaaacct 160740
ctattaaggg aggagtgaag cccaggaggt caaagagccc aggatagaag caaggctagc 160800
tgccaagcca agcttggaac tctcccaaaa gataccacag agaaatatgc ccaaatgtga 160860
atgctactgg cttcaagttg tgtaataatg ggtaggtttt ttccccccgg gtctttatgc 160920
tttgatgtgc tttccaattt tttttttaaa taagcacaga tgactcttac aaagcaaaaa 160980
aatagagtgt acaatgtgaa agatgtatac attaaaaata aaaaccaaac catgattgtt 161040
accaaaccat gtagtccaga aaccttgaag gataaaaag gaagctcaga tggacagcat 161100
aagaatgtta cagctctaaa caaaattaaa atattacaat aaaaaaaatg ttcccataat 161160
gctgaagatg tcattggaca gcaggtcagt ggggcccact tagtcgggcc aggcagagtg 161220
gagctgtcca aggtgccaga gtaagaaagg gcagtggatg cagagatgac tgcgttactc 161280
agtgcactgg caaggccaat agctcctccc cagtcttcct cccactgagt ttaaaactct 161340
ctatccagca attcaaacca ctttcttcct tatacttgct aaagtccata atgagactgg 161400
gcacagtggc tcatgtctat aatttcagca ctttgggagg ccgaggcagg tggatcacct 161460
gaggtcagga gttcaagagc agcctggcca acatggcgaa acctccactt taccaaaaaa 161520
tacaaaaaaa aattagctgg gtgtggtggt ggtggtgggc gcctgtagtt ccacctactt 161580
gggaggctga ggtggaagaa tcacttgaac ccagaggcag aggctgcagt gagccaagat 161640
catgccactg cactccagcc ttggcaacag agtgagaccc tgtctcaaaa taaacaaaaa 161700
aaaagtaaga gagagagaga gtgtgaagaa agaaagaaag aaagaagaa agaaagaaag 161760
accaaccata ataatggtca cattcatctc agaaacaaca aataattttt tagtcttcat 161820
caattttttt tctcagctct ttaggggtta tgaaaggagt aagcaaatat ttaaactatt 161880
tgaggaggtt ttaggcatat ttgaagctag caaagtttcc caccatttaa cacaaggctt 161940
tacatgaagt cagtaaaatt agatgcaaaa tcaagcccct gaatacttga aaaaatacag 162000
tagaccttga cgtgtgcaag gtatttatcc caaaaccttt cctaatccca aggttgggaa 162060
cagccctata gcaaaaaact tcccccttta ttagtcagga ctcttttgat tataaattat 162120
agaaactcaa atgacacaga ggggaatgaa ttggaggata aaatttaaaa aatagttgaa 162180
caggttgggc gcagtggctc atgcctataa tcccagcact ttgggaagct gagtcaggca 162240
gattacttga ggtcaggagt ttaaaaccag cctgggcaac aatggtgaaa tcctaaaaat 162300
acaaaaatta gccgggtgtg gtggctcacc tgtaatccca gctactcaag aggctgaggc 162360
aggagaatca cttgaacctc ccaggaggca gaggctgcag cgagccaaga tcatgccact 162420
gcaccccaga ctggatgacg ggagagaaat cttatctcaa aaaaaaaaaa tggttgaaca 162480
accttctgat tgctcacaga taataaatta taaattataa atgaccaggg tctagcatgc 162540
cacagagaaa ataagtttta atggcagttg cttccctgaa atggatttat tgtctaaaag 162600
gcagaaggtt ctcaatgatc ctgcatctgg actcatcttg acaccacctg ctctttctca 162660
cccacccatc atcaactaac tcctattatt tctaagccaa taataggtct ccaattagtc 162720
ccttcctctc tctcaactac tgtccttgtt caggccgcca tcatgaccag gttgaatcat 162780
tctgtaaata gcagattgag aaatgtgatg cctgggcttg ttagctaaat acctattaag 162840
aaagaatgat ttaggccagg tgcagtagct catgctacaa tcctagtact ttgggaggcc 162900
gaggctggtg gatcgcttga gcccaagagt tcaagacaag cctaggaaac atagcaaaac 162960
cttgtcctct actaaaagta caaaaaacta gccaggtgtg gtggcacaca cctgtggtcc 163020
```

198

```
cagctactcc agaggctgag gtgggaagat cgcctaagcc cagggaggtc aaagatgcag 163080
tgagctatga tcgtgccact gcactccagc ctgtgcaaca ggtgtgagac gctgtctcaa 163140
aaaaaaaaaa aaaaaaaagg aagattttta ttctcaaggt atattaaaga agactaggaa 163200
aatcacaaga gcatgggttt cagaatcaga tcgttccggc ttaaatgtag ctctatcact 163260
tactctatgg atgaccatgg caaagtattc aatctgagtt gactttctta taaaataggc 163320
ataataatat ttgtcttgca gaattttttt tctttcttct ttttcttaga cagagtgcct 163380
cactctgtca cctaggctgg tcttgaattc ctggactcaa gtgatcctcc caccttggcc 163440
tcccaaagtg ctaggattac aggtgtgagc cagcagggct ggctttgtga acttattatg 163500
aagattaaat caggtggaag atttttaaag tgctcaaaat attgagagaa tattcaatat 163560
atgctgctaa tatcagaggc ctcatgctaa ccttacaaaa gtcaataaac aaacacaagg 163620
taaatgatga gggtcagaaa aatacatcgg ccttactctt ctcaccttgc tttgcctccc 163680
aaacaaaggt ctgccaccat tttatttctc taagcccaaa aggtttgact aaataatagt 163740
tctctgtttg ccttgttagg cagtgtttga tgtggcacca ttacctgaag aatgaagtca 163800
agagtcattc ttggaagagg gttagaatgt ttgaatgttc aggtttgaat gtttgcagaa 163860
ttacaacaaa attggggtat gaaaagaag atggggctcc agaaagtcaa acatctaaag 163920
tgtttgttct atattattat atgatataga ctgcaatgtg gatataataa tagaagatgg 163980
tattagagat gatattacaa tattgaacat ggattcaaca ataatatctt cctgaaagat 164040
tttttttaaa gctagactcc ccagcctggg caacatagta agaccccatc tttacaaaat 164100
ataaaaagtt ggctagaagt gatggtgagt agtcctagct actcaggtgg ccaaggtagg 164160
agaattgctt gagcccaaga ggttgaggcc gcagtgagct atgatgatgc cactgtactc 164220
cagcctgggc aacaaagcaa gatcctgtct ttaaaaaagc aaaacaaaaa caaacaaaca 164280
aacaaaaga ataaaaccat tcagcacaga gtaaactcaa tgaaatcaac aaaatctcct 164340
aagaatctga aagccataca agtttctttt tcaccttgtt taataattct caaaaaccat 164400
gactggggaa accaattctg gtattaaaaa taaatactgc tttctccctt tttagctaaa 164460
ctttataaga ctcagcatct cagaaagacc ctcttatatt ctagagatat gctactgtct 164520
tcctagagag catcagcaaa caactaactt aaaatgtaat cagtgaaaaa atataaaaca 164580
tttccaaaag aaattttaac aagacccaaa taaattgaaa gacatcccat gttcatggat 164640
tggaagactt aatattgtta ggatgagaat actatccaaa gctttataca gatccaatgc 164700
aatccctatc aaaatctcaa gagcatcttt tgcagaaatg aaaaatccca ttctaaaatt 164760
cataaagaat taagagactc aaaatagcca aaaataatct tgaaaaagaa aaacaaagtt 164820
ggagggctca catgttctga tttcaaaacg tattacaaag ctacagtaat caaaaaagtg 164880
taatcaaaac agcactaagt gtggtgctgg cataaaaata gacatatcaa ccaatggaat 164940
aaaatttaga acccagaaat aaacccaaat gtctctagtc aattgatttc agcaagagtg 165000
tcaaggccac tcaatgggaa aaagagagtg ttttcaacaa atggtgctga aaaaactgga 165060
tatccacatg cgaaatgaag ttagaccctt accctatacc atatataaaa actaacagtg 165120
aatcaaaagc ctaaatttaa gaggcagaac tataaaactc ttaaaagaaa acatgggca 165180
aatctgcatg gtcttagatt aggcagtggt ttcttaagta tgacacttaa aaagcacagg 165240
taacaaaaga atatatagat aaactaaact ttttgaaaat aaaaaacttg tatgcatcaa 165300
tggacactat caagagagta aaaacacaat ccacagaatg ggagaaaata tgtataaatc 165360
atatatccta taagggtttg atgtccagaa tacgtaaaaa actcctacaa ctgaacaaca 165420
caaaaacaat cccattttaa aatgtgcaaa gggagggatt agcaggaagg aagaaatgaa 165480
taggatgagc acagaggatt tttagggcag taaaactatt ctatatgcta ctatcatgtg 165540
gattcatgtc attatacact catcaaaact tgcataccaa caccaagagt gacctctaac 165600
gtaaatatgc attctgggtg ctaatgatat gtcaatttgg ttaatcaatt gtattagatg 165660
taccactctg atgagggatg ttgaatgtgg gtcagcctat gcatgtgtgg aggtgagagg 165720
tatatgggaa ttctctactt tctgctcagt tttgctgtta acttaaaaac tactctaaaa 165780
aataatacag tggggagaaa aagaggacaa agagcttgaa cagacatttc tccaaagaag 165840
```

199

```
atatacaaat gaccaataaa cacaggaaaa gatgctcaac attgctaatc attaaggaaa 165900
tgcaaatgaa aaccataatg agatagcatt tcacacctaa gatggctata tatatatata 165960
tatggctata tataaatata tctatatatt tttttgaga caggatctca ctttgtcgtc 166020
tgggctacag tgcagtggca cgatcatggc ttactgcagc ctccacctcc tggggtcaag 166080
tgatcctccc acctcagcct cttgagtagc tgagtccata ggcatgcacc accacagcca 166140
gataattttt ttttttgtag ctatggggcc tccctgtgtt gcgcaggctg gcctggaact 166200
cctgggctca agcaatcctc ccaccttggc ctccaaaaat gctgggttta caggcatgag 166260
ccacaacacc aggctataat tttttttaa aggaaaatag caaatgtgga agaggatgtg 166320
gaaaaatggg aacccttgga cattgctggt gggaatgtag cgacgcaacc actgtggaaa 166380
acagcttggc agttcctcaa gaagttaaac atagaattac catatgatcc agcaacttca 166440
ctcctatgaa aacacccaga agaagtaaaa aggactcagg caaatacttg cataccaatg 166500
ttcattgagg tattattcac cagagccaaa agctagaaac aactgaaatg cccaacatgg 166560
gaagaaacaa aacgtggttc agtatacata cacacacaca cacacacaca cagacacaca 166620
cacacacaca cacaatggaa tattattcag ccgtcaaaat taagctctga tgcatgctac 166680
aatatggatg gaccttgaag acatgctaaa tgaaagaggc tagacacaaa aggaccatac 166740
tgtatgattc cacatatagg aagagacgca aattcgtaga tacagaagtc taatggtagt 166800
tgccagaagc tgggaggaga aaggaattgg gagttattaa ccttggttaa tgggaagaga 166860
gttttgtcag agtagtgatg cttgcacaga ttatgaatgt aatgaatgcc actgagttat 166920
acacaaaagt ggcttaagtg ggaaatttta tgttatatgt atttcaacac attttttaag 166980
agaaaagtaa tatgtgcaaa atgacctatg aatacaggaa ttagagactg ttgctggtca 167040
ggcatggtgg ctcatgctta taatcccagc actttggaag gctgaggcag gaggatcact 167100
tgagcccagg agtttgagat tagcctgggc aacataagga gagcatgtct ctacaaaaaa 167160
taaaaaatta gccgggtgtg gtggcatatg cctgtagtac tagttattct ggaacctgag 167220
gcgggaagat ttcctgagcc taggagttcg aggctgcagt gagtcatgat agtgccactg 167280
cactccagcg ttggggacaa agttagaccc tgtctttgaa aaaaacagaa gaaactgttc 167340
tga                                                                167343
```

<210> 274
<211> 210
<212> DNA
<213> Homo sapiens

<400> 274
```
ttccttggat ttgtccaaat ccaaaccccc atttctgtac tttgctttct gtcttcaggt    60
gatcaggatg cccttctctc atctgtctac ctacagcctg gtttgggtca tggcagcagt   120
ggtgctgtgc acagcacaag gtaaagaaac tcaattcccc tgcttggagc ccagcaaaca   180
caatttctgg ggtgaagaca tttagccaga                                    210
```

<210> 275
<211> 231
<212> DNA
<213> Homo sapiens

<400> 275
```
actggtgggc tggagtccca gggggagatt attccaagta ggggctccag aaagtggcca    60
gatggtgtga gtggctccag aagactcttc tcttctctgt gcaagagcca ggaaggctct   120
agaaaggaat gtctgaggaa gcatcggaga ctgggtcccg ccatgcctgt gtcatctcct   180
ggcttccccg gcccttatgg ctcgttcgga acaccacctg gatacggctg c           231
```

<210> 276

<211> 719
<212> DNA
<213> Homo sapiens

<400> 276
```
aagatgggat tcttcaaacg ggcgaagcac cccgaggcca ccgtgcccca gtaccatgcg      60
gtgaagattc ctcgggaaga ccgacagcag ttcaaggagg agaagacggg caccatcctg     120
aggaacaact ggggcagccc ccggcgggag ggcccggatg cacaccccat cctggctgct     180
gacgggcatc ccgagctggg ccccgatggg catccagggc caggcaccgc ctaggttccc     240
atgtcccagc ctgcgctgtg gctgccctcc atcccttccc cagagatggc tccttgggat     300
gaagagggta gagtgggctg ctggtgtcac atcaagaatt tggcaggatc ggcttcctca     360
ggggcacaga cctctcccac ccacaagaac tcctcccacc caacttcccc ttagagtgct     420
gtgagatgag agtgggtaaa tcagggacag ggccatgggg tagggtgaga agggcagggg     480
tgtcctgatg caaaggtggg gagaaggatc ctaatccctt cctctcccat tcaccctgtg     540
taacaggacc ccaaggacct gcctccccgg aagtgcctta acctagaggg tcggggagga     600
ggttgtgtca ctgactcaag gctgctcctt ctctagtttc ccctctcatc tgaccttagt     660
ttgctgccat cagtctagtg gtttcgtggt ttcgtctatt tattaaaaaa tcggaaccc      719
```

<210> 277
<211> 1459
<212> DNA
<213> Homo sapiens

<400> 277
```
ccgagcttct taaacacagg ccttgggcta cggctctggg ggtacttggg ggggcggggg      60
caggtctgat gagtaacccc tccccccagg ttccagagga agaagcctcc acatctgtct     120
gccggcccaa gagttccatg gcctccactt cccgccgcca acgccgagaa cgtcgctttc     180
gtcgttactt gtctgcagga cggctggtcc gggcccaggc cctcctccag cgacacccag     240
gcctcgatgt agatgctggg cagcccccac cactgcaccg ggcctgtgcc cgccacgatg     300
cccctgccct gtgcctgctg cttcggctcg gggctgaccc tgcccaccag gaccgccatg     360
gggacacggc actgcatgct gctgcccgcc agggcccaga tgcctacacc gatttcttcc     420
tcccgctgct aagccgctgt ccctctgcca tgggaataaa gaataaggat ggggagaccc     480
ctggccaaat tttgggctgg ggaccccct gggattctgc tgaagaggag gaagaagatg     540
atgcctccaa ggagcgggaa tggagacaga agctccaggg tgagctggag gacgagtggc     600
aggaagtcat gggggaggttt gaaggtgatg cctcccatga aacccaggaa cctgagtcct     660
tctcagcctg gtcagatcgc ctggcccggg aacatgccca gaagtgccag cagcagcagc     720
gagaagcaga gggatcctgt cgaccccac gtgctgaggg ctccagccag agctggcgac     780
acgaggagga ggagcagcgg ctcttcaggg agcgagcccg ggccaaggag gaagagctgc     840
gtgagagccg agccaggagg gcgcaggagg ctctagggga ccgagaaccc aagccaacca     900
gggccgggcc cagggaagag caccccagag gagcggggag gggcagcctc tggcgatttg     960
gtgatgtgcc ctggccctgc cctgggggag gggacccaga ggccatggct gcagccctgg    1020
tggccagggg cccccctttg gaggaacagg gggctctgag gaggtacttg agggtccagc    1080
aggtccgctg gcaccctgac cgcttcctgc agcgattccg aagccagatt gagacctggg    1140
agctgggccg tgtgatggga gcagtgacag cccttctca ggccctgaat cgccatgcag    1200
aggccctcaa gtgaccctag ggaagaagca agaaacttcg gggctgcagc ctcaggatga    1260
ggcagaagga agggtaaggg aaaggatggg gaccacaagg aagagccagg tgctgctcag    1320
cagaggatat gggtgggagc gaaagttgta acaagtgggg gtgggggtg cgggccgcca    1380
ccactgctcc ttgactctgc cgtttcctaa taagacctgg ttccacatct caaaaaaaaa    1440
aaaaaaaaaa aaaaaaaaa                                                 1459
```

<210> 278
<211> 3922
<212> DNA
<213> Homo sapiens

<400> 278
```
aagcttgctc ttgcagccaa aagactaatt gcaaaggcat cttctcagtg aaggggcgg       60
ggtgggctag ggctgagtgg aaatggtgag agagattatt gtagaaaata tctcttccgg      120
gaacttaggg caaagagttt tattttcagg aatcacatcc ctgtctcccc caacctcaga      180
ccaggccccc aatctcctcc ccacaagaaa aagcaaaggc agtctgaaaa cctgttgcca      240
aaggaaggga acacttctga aggaggaagt tgagagtctt aggccaggtc ttgaaggagg      300
gggtatcaat taagcagaga ctgattggaa ggggacctaa cgtgcctatg atagactcct      360
ttctgaggtt tacctgtttt tgtcgcgggc ggtggcgggg cgggtgcggt aatctagaga      420
ggtctgggtt gtgtgagata ttttgagttg aagaatctat ttgactagta aaaaagttga      480
actttaaagt ggtagctttg gggacagagg acatgggggt tgcattgcag gagtcagcat      540
ggagcagggt gcttgtcaca cagtttggat cttgtggttt cttacgcatg gggccaaaat      600
aaacccaggt gaatggccta tgggagggag agagggaagg gagcttgcta gagccgaggt      660
agagatgagt tctttgagaa agagcgggcg tttgtgattg tgtaggggc tgcccatagt      720
ggacatcctg gtggatgtcc tctgtcctta ccatccttct cttctctctc cagggtaaca      780
agatgctcaa ctatagtgct cccagtgcag ggggttgcct gctggacaga aaggcagtgg      840
gcacccctgc tggtgggggc ttccctcgga ggcactcagt caccctgccc agctccaagt      900
tccaccagaa ccagctcctc agcagcctca agggtgagcc agcccccgct ctgagctcgc      960
gagacagccg cttccgagac cgctccttct cggaaggggg cgagcggctg ctgcccaccc     1020
agaagcagcc cggggggcggc caggtcaact ccagccgcta caagacgag ctgtgccgcc     1080
cctttgagga aaacggtgcc tgtaagtacg gggacaagtg ccagttcgca cacggcatcc     1140
acgagctccg cagcctgacc cgccaccca agtacaagac ggagctgtgc cgcaccttcc     1200
acaccatcgg cttttgcccc tacgggcccc gctgccactt catccacaac gctgaagagc     1260
gccgtgccct ggccgggggcc cgggacctct ccgctgaccg tccccgcctc cagcatagct     1320
ttagctttgc tgggtttccc agtgccgctg ccaccgccgc tgccaccggg ctgctggaca     1380
gccccacgtc catcacccca cccctattc tgagcgccga tgacctcctg ggctcaccta     1440
ccctgcccga tggcaccaat aacccttttg ccttctccag ccaggagctg gcaagcctct     1500
ttgcccctag catggggctg cccggggggtg gctccccgac caccttcctc ttccggccca     1560
tgtccgagtc ccctcacatg tttgactctc cccccagccc tcaggattct ctctcggacc     1620
aggagggcta cctgagcagc tccagcagca gccacagtgg ctcagactcc ccgaccttgg     1680
acaactcaag acgcctgccc atcttcagca gactttccat ctcagatgac taagccaggg     1740
tagggaggga cctcctgcct actccagccc ctaccctgca cccacatccc atacctcctt     1800
ctccctaccc atcccattcc ccacaggccc tacattaaca aggttaagct caacccctt     1860
cccccagcac ctcagaatgt gccctccctc tcccctcat aaccccacct aacataagga     1920
caagtcaatt tgtcagtagc ttcttctggc ttgaaacccc ctccctggat tttatagccc     1980
acttaccatg cataacagac aagtcccata ttttgtcagt agatgccttt ttttttcgct     2040
taagccttaa gtgccaaatc acaagagaaa aagcagtaac agtttacaga agcaacttag     2100
tgccttgtaa tctaactttg tcactgtgac tacattacct cttcagcgcc agagggcacc     2160
cgtgggcctc ccggagcctc tgcccatggc ggggtggaga cccggaacca gcagcccct     2220
ccactggcga cacaactgca ccttccctca tttcagtctc ccgcacactt attcctcctc     2280
ccctcttccc ggtggcacct ctccacctgt accgcccccc acccccccca cccctgcccc     2340
ttggaagagt tgttgccaga ccagggtttt ggggggaaacc tgtcttgaca ttcaaaacct     2400
ttttcttccc gatctgaacc cctgttgact aatcttgcct gggtttgtgt aggtctgcag     2460
gaaggaaggc tgaaaaagcg gacgaagatt ttgacttaag tggactttgt gatttaattt     2520
```

202

```
tttctttttt ttaagtgggg aggaaggggga agctagatgg actaggagag acttgatttt    2580
ggtgctaaag ttccccagtt catatgtgac atcttttaa aaaaaataac aacaaaaaa       2640
aaatgagaga aaagctaaaa aaaaaaagt aagggtgag cagttaatgg tattcattcc        2700
acatacaata tctgtgtaaa acgatttcct gtagaagtag ctttaatggt ttttgctcta      2760
gaataccgta ggtctatcct tagagcactc acgccatgct ttcttccctg ggttttaaac      2820
ttcatataac tttcagaaat tggagagcaa aaattttgct tgtcactgca catcaatata      2880
aaaaagctta tttaacttat caaaacgtat ttattgccaa actatgcttt tttttgttaa      2940
ttttgttcat atttatcggg atgacaaatc catagaatat attcttttat gttaaattat      3000
gatcttcata ttaatcttaa aattttgtga cgtgtctttt tccttttttt ccacagtttt      3060
aatatattat tcttcaacga catttttttgt aactttacac ttttttggtt attttatttt     3120
aaaaaaatga aaaattaatt taaaaaaatg caaaaaactg ttggattatt tattttagaa      3180
attccccccct ttgtgttgga ctgcaaattg agtttctttc tctttaggcc tttcacaact    3240
aggactgaga atgtatgtaa aagttctgtg acagtacaga aggaaaacaa cttttttatgt     3300
atagcttcta aaaggggaaa aaaaaaaaaa agagaaaccc tttgacttcc acgtgcccat      3360
ctcaagacat tccactcaca gatttgaggt tctggattcc aggtctggag ttttccaatg      3420
ttaatgtaaa cagaactggc acacacacat taagatgaat gtaattatta ttcctcttgc      3480
tggtcactac cgtcgctttc tatttctctt tctttgtgtg aatttattta aaagaaaaaa      3540
aactttttgt aacgactatt tgcagtttaa aaatcaataa accccgtttt ttcaagaaac      3600
attgatggtg gagctggttt tacttggttt tggtttgact ttgccagtaa ggttctcccc      3660
ttgtatacct tgcaagtcct gggggagggg aggcggagag agagggctgt ggctgtgggt      3720
ggcggcatct ctcatcccta taagctaagc ctatagctcc cttccttgat gctggcagtt      3780
tgctgcactt agaggggacg gggtggaggt tttctgcaaa ggagcctgta cttcctgctg      3840
tattacttct gaaaagactg tgcagtgtgt tagttgttgg ctgaatagca gcgggcccag      3900
ccttgccgac acttgtgtgg cc                                              3922
```

<210> 279
<211> 2847
<212> DNA
<213> Homo sapiens

<400> 279
```
ttggggggttg ggagaaaggt ggcggtgctt tcggagggaa taaaatggaa ggagaatcaa       60
gcagatttga aatccacact ccagtttctg acaagaaaaa gaaaagtgt tctatacata        120
aggaaagacc tcagaaacat tcccacgaaa ttttcagaga ctcctccctg gtgaatgaac        180
agtctcaaat aactaggagg aaaaagagga aaaagatttt ccagcatctc atttcttctc        240
ctttgaaaaa atccagaatc tgtgatgaga ctgcaaatgc cacttccaca ctcaaaaaga       300
gaaaaaagag aagatatagt gctttggagg tggacgagga agcaggtgtt acagttgtcc        360
ttgtggataa agaaaatatt aacaacacac caaagcattt tagaaaggat gttgatgttg       420
tttgtgttga tatgagcata gaacagaagt taccaagaaa gcctaaaaca gacaaatttc       480
aggtacttgc taagtcacat gcacataaat cagaagccct gcacagtaaa gttagggaga       540
aaaagaataa aaagcatcag aggaaagctg catcctggga gagccagcgg gcaagggaca       600
ccctgcctca gtcagaatcc caccaggagg agtcctggct ttctgtgggt ccaggggggtg      660
aaattacaga actaccagca tctgctcata aaaacaagtc taagaaaaaa aagaaaaagt       720
ccagtaaccg ggaatatgag acactggcca tgcctgaagg atcgcaagca ggcagagagg       780
ccgggactga tatgcaggaa tcccagccta ctgtgggctt ggatgatgaa actccacaac       840
tactaggacc tactcacaaa aaaaagtcta agaaaaaaaa gaagaaaaag tccaatcacc        900
aggaatttga ggcattggcc atgcctgaag gatcacaagt gggcagtgag gttggggctg       960
atatgcagga atcccggcct gctgtgggcc tgcatggtga aactgcagga ataccagcac      1020
```
```
                                    203
```

```
ctgcttataa aaacaagtct aagaaaaaaa agaaaaagtc caatcaccag gaatttgagg    1080
cagtggccat gcctgagagc ctcgagagtg cataccctga aggatcacag gtgggcagtg    1140
aggttgggac tgtggaaggc agtacagctc ttaaagggtt caaggaatcc aacagtacaa    1200
agaagaagtc taagaaaagg aagcttacgt ctgtcaaaag ggcacgagtg tctggtgatg    1260
attttttcagt gcccagtaag aactctgaga gcacactctt tgattcagta gaaggtgatg    1320
gcgccatgat ggaagaaggt gtgaaatcta ggccccgaca aaagaaaacc caggcctgtt    1380
tggcaagcaa gcacgtgcaa gaggcgccaa ggttagaacc tgcaaatgaa gaacacaatg    1440
tggaaacagc tgaagattcc gaaataagat acttatctgc agattcagga gatgccgatg    1500
attcagatgc ggatttgggt tctgccgtga aacagcttca ggagttcatt cctaacatca    1560
aggacagggc caccagcaca atcaagcgga tgtaccggga cgacttggaa cggtttaagg    1620
aatttaaagc acaaggtgtc gctattaaat ttggcaagtt ttctgtaaag gaaaataagc    1680
agttagagaa aaatgtggaa gactttctag ccctgacagg cattgagagt gcagacaagc    1740
tcctgtacac ggacagatat cctgaggaaa aatctgtgat caccaactta aaaaggagat    1800
actcgtttag attacacatt ggtaggaaca ttgcccggcc ctggaaactt atatactatc    1860
gagcaaagaa gatgttcgat gtcaacaatt acaaaggcag gtatagcgaa ggagatactg    1920
agaagttaaa gatgtaccat tctctccttg ggaatgactg gaagacgatt ggtgagatgg    1980
tggcccgacg tagcctctcc gtggccctca agttctcaca gatcagcagt caaagaaatc    2040
gtggtgcttg gagtaagtct gaaacccgga aactaatcaa ggctgtcgaa gaagtgattc    2100
tgaagaagat gtctccccag gagttaaaag aggtggattc caaactccaa gaaaatcctg    2160
aaagttgcct atcaattgtt cgggaaaaac tctacaaggg catatcttgg gtagaagtag    2220
aagctaaagt gcaaaccaga aattggatgc agtgtaaaag taagtggaca gaaattctaa    2280
ccaagaggat gactaatggt cggcgtatat actatggcat gaatgccctg cgggccaagg    2340
tcagccttat tgaaaggttg tatgaaataa atgtggaaga tactaatgaa atagactggg    2400
aagatcttgc tagtgccata ggtgatgttc ctccatctta cgttcaaact aaattttcta    2460
ggctgaaagc tgtctatgtt ccattttggc agaaaaagac ttttccagag atcatcgact    2520
acctttatga gacgactcta cctttgctga aggaaaagtt agaaaaaatg atggagaaaa    2580
aaggcactaa aatccagact cctgcagcac ccaagcaagt tttcccattt cgagacatct    2640
tttattatga agacgatagt gaaggaggag gacatagaaa aagaaagcga aggggaattc    2700
cgtaaagcct agaatcaaaa gaaaacaaaa cccatagtca agccacagac aagcccagaa    2760
taatatggcc aggggatcaa tccgattagc cgactggccc agatccagca ggcaaaaaag    2820
gagaaggagc cagagtacac gctcctc                                       2847
```

<210> 280
<211> 729
<212> DNA
<213> Homo sapiens

<400> 280
```
gaattcggga gcatggacct cagtcttctc tgggtactta tgcccctagt caccatggcc      60
tggggccagt atggcgatta tggatacccca taccagcagt atcatgacta cagcgatgat     120
gggtgggtga atttgaatcg gcaaggcttc agctaccagt gtccccaggg gcaggtgata     180
gtggccgtga ggagcatctt cagtaagaag gaaggttctg acagacaatg gaactacgcc     240
tgcatgccca cgccacagag cctcggggaa cccacggagt gctggtggga ggagatcaac     300
agggctggca tggaatggta ccagacgtgc tccaacaatg gctggtggc aggattccag      360
agccgctact tcgagtcagt gctggatcgg gagtggcagt tttactgttg tcgctacagc     420
aagaggtgcc catattcctg ctggctaaca acagaatatc caggtcacta tggtgaggaa     480
atggacatga tttcctacaa ttatgattac tatatccgag gagcaacaac cactttctct     540
gcagtggaaa gggatcgcca gtggaagttc ataatgtgcc ggatgactga atacgactgt     600
gaatttgcaa atgtttagat ttgccacata ccaaatctgg gtgaaaggaa aggggccctc     660
```
```
                                  204
```

```
cagctttcca ctgcagagaa agtggttgtt gctcctcggt atatgtaatc ataattgtag    720
atcgaattc                                                           729

<210>   281
<211>   2393
<212>   DNA
<213>   Homo sapiens

<400>   281
gacgaggagg cggcgccgct gctgcggagg acggcgcggc ccggcggggg gacgccgctg     60
ctgaacgggg ctgggcccgg ggctgcgcgc cagtcaccac gttctgcgct tttccgagtc    120
ggacatatga gcagcgtgga gctggatgat gaacttttgg acccggatat ggaccctcca    180
catcccttcc ccaaggagat cccacacaac gagaagctcc tgtccctcaa gtatgagagc    240
ttggactatg acaacagtga gaaccagctg ttcctggagg aggagcggcg gatcaatcac    300
acggccttcc ggacggtgga gatcaagcgc tgggtcatct cgcgccctcat tgggatcctc    360
acgggcctcg tggcctgctt cattgacatc gtggtggaaa acctggctgg cctcaagtac    420
agggtcatca agggcaatat cgacaagttc acagagaagg cggactgtc cttctccctg    480
ttgctgtggg ccacgctgaa cgccgccttc gtgctcgtgg gctctgtgat tgtggctttc    540
atagagccgg tggctgctgg cagcggaatc ccccagatca agtgcttcct caacggggtg    600
aagatccccc acgtggtgcg gctcaagacg ttggtgatca aagtgtccgg tgtgatcctg    660
tccgtggtcg ggggcctggc cgtgggaaag gaagggccga tgatccactc aggttcagtg    720
attgccgccg ggatctctca gggaaggtca agctcactga aacgagattt caagatcttc    780
gagtacctcc gcagagacac agagaagcgg gacttcgtct ccgcaggggc tgcggccgga    840
gtgtcagcgg cgtttggagc ccccgtgggt ggggtcctgt tcagcttgga ggagggtgcg    900
tccttctgga accagttcct gacctggagg atcttcttg cttccatgat ctccacgttc     960
accctgaatt ttgttctgag catttaccac gggaacatgt gggacctgtc cagcccaggc   1020
ctcatcaact tcggaaggtt tgactcggag aaaatggcct acacgatcca cgagatcccg   1080
gtcttcatcg ccatgggcgt ggtgggcggt gtgcttggag cagtgttcaa tgccttgaac   1140
tactggctga ccatgtttcg aatcaggtac atccaccggc cctgcctgca ggtgattgag   1200
gccgtgctgg tggccgccgt cacggccaca gttgccttcg tgctgatcta ctcgtcgcgg   1260
gattgccagc ccctgcaggg gggctccatg tcctacccgc tgcagctctt ttgtgcagat   1320
ggcgagtaca actccatggc tgcggccttc ttcaacaccc cggagaagag cgtggtgagc   1380
ctcttccacg acccgccagg ctcctacaac cccctgaccc tcggcctgtt cacgctggtc   1440
tacttcttcc tggcctgctg gacctacggg ctcacggtgt ctgccggggt cttcatcccg   1500
tccctgctca tcggggctgc ctggggccgg ctctttggga tctccctgtc ctacctcacg   1560
ggggcggcga tctgggcgga ccccggcaaa tacgccctga tgggagctgc tgcccagctg   1620
ggcgggattg tgcggatgac actgagcctg accgtcatca tgatggaggc caccagcaac   1680
gtgacctacg gcttccccat catgctggtg ctcatgaccg ccaagatcgt gggcgacgtc   1740
ttcattgagg gcctgtacga catgcacatt cagctgcaga gtgtgccctt cctgcactgg   1800
gaggccccgg tcacctcaca ctcactcact gccagggagg tgatgagcac accagtgacc   1860
tgcctgaggc ggcgtgagaa ggtcggcgtc attgtggacg tgctgagcga cacggcgtcc   1920
aatcacaacg gcttccccgt ggtggagcat gccgatgaca cccagcctgc ccggctccag   1980
ggcctgatcc tgcgctccca gctcatcgtt ctcctaaagc acaaggtgtt tgtggagcgg   2040
tccaacctgg gcctggtaca gcggcgcctg aggctgaagg acttccgaga cgcctacccg   2100
cgcttcccac ccatccagtc catccacgtg tcccaggacg agcgggagtg caccatggac   2160
ctctccgagt tcatgaaccc ctccccctac acggtgcccc aggaggcgtc gctcccacgg   2220
gtgttcaagc tgttccgggc cctgggcctg cggcacctgg tggtggtgga caaccgcaat   2280
caggttgtcg ggttggtgac caggaaggac ctcgccaggt accgcctggg aaagagaggc   2340
```

205

```
ttggaggagc tctcgctggc ccagacgtga ggcccagccc tgcccataat ggg          2393

<210>   282
<211>   14255
<212>   DNA
<213>   Homo sapiens

<400>   282
gcggcggcgg cggcgggaag cagcggggct ggggttccag ggggagcggc cgccgcctca      60
gcagcctcct cgtcgtccgc ctcgtcttcg tcttcgtcat cgtcctcagc ctcttcaggg     120
ccggccctgc tccgggtggg cccgggcttc gacgcggcgc tgcaggtctc ggccgccatc     180
ggcaccaacc tgcgccggtt ccgggccgtg tttgggggaga gcggcggggg aggcggcagc     240
ggagaggatg agcaattctt aggttttggc tcagatgaag aagtcagagt gcgaagtccc     300
acaaggtctc cttcagttaa aactagtcct cgaaaacctc gtgggagacc tagaagtggc     360
tctgaccgaa attcagctat cctctcagat ccatctgtgt tttcccctct aaataaatca     420
gagaccaaat ctggagataa gatcaagaag aaagattcta aaagtataga aagaagagag     480
ggaagacctc ccaccttccc tggagtaaaa atcaaaataa cacatggaaa ggacatttca     540
gagttaccaa agggaaacaa agaagatagc ctgaaaaaaa ttaaaaggac accttctgct     600
acgtttcagc aagccacaaa gattaaaaaa ttaagagcag gtaaactctc tcctctcaag     660
tctaagtttta agacagggaa gcttcaaata ggaaggaagg gggtacaaat tgtacgacgg     720
agaggaaggc ctccatcaac agaaaggata aagacccctt cgggtctcct cattaattct     780
gaactggaaa agccccagaa agtccggaaa gacaaggaag gaacacctcc acttacaaaa     840
gaagataaga cagttgtcag acaaagccct cgaaggatta agccagttag gattattcct     900
tcttcaaaaa ggacagatgc aaccattgct aagcaactct tacagagggc aaaaaagggg     960
gctcaaaaga aaattgaaaa agaagcagct cagctgcagg gaagaaaggt gaagacacag    1020
gtcaaaaata ttcgacagtt catcatgcct gttgtcagtg ctatctcctc gcggatcatt    1080
aagacccctc ggcggtttat agaggatgag gattatgacc ctccaattaa aattgcccga    1140
ttagagtcta caccgaatag tagattcagt gccccgtcct gtggatcttc tgaaaaatca    1200
agtgcagctt ctcagcactc ctctcaaatg tcttcagact cctctcgatc tagtagcccc    1260
agtgttgata cctccacaga ctctcaggct tctgaggaga ttcaggtact tcctgaggag    1320
cggagcgata cccctgaagt tcatcctcca ctgcccattt cccagtcccc agaaaatgag    1380
agtaatgata ggagaagcag aaggtattca gtgtcggaga gaagttttgg atctagaacg    1440
acgaaaaaat tatcaactct acaaagtgcc ccccagcagg agacctcctc gtctccacct    1500
ccacctctgc tgactccacc gccaccactg cagccagcct ccagtatctc tgaccacaca    1560
ccttggctta tgcctccaac aatcccctta gcatcaccat ttttgcctgc ttccactgct    1620
cctatgcaag ggaagcgaaa atctattttg cgagaaccga catttaggtg gacttcttta    1680
aagcattcta ggtcagagcc acaatacttt tcctcagcaa agtatgccaa agaaggtctt    1740
attcgcaaac caatatttga taatttccga ccccctccac taactcccga ggacgttggc    1800
tttgcatctg gtttttctgc atctggtacc gctgcttcag cccgattgtt ttcgccactc    1860
cattctggaa caaggtttga tatgcacaaa aggagccctc ttctgagagc tccaagattt    1920
actccaagtg aggctcactc tagaatattt gagtctgtaa ccttgcctag taatcgaact    1980
tctgctggaa catcttcttc aggagtatcc aatagaaaaa ggaaaagaaa agtgtttagt    2040
cctattcgat ctgaaccaag atctccttct cactccatga ggacaagaag tggaaggctt    2100
agtagttctg agctctcacc tctcaccccc ccgtcttctg tctcttcctc gttaagcatt    2160
tctgttagtc ctcttgccac tagtgcctta aacccaactt ttacttttcc ttctcattcc    2220
ctgactcagt ctggggaatc tgcagagaaa aatcagagac caaggaagca gactagtgct    2280
ccggcagagc catttttcatc aagtagtcct actcctctct tcccttggtt taccccaggc    2340
tctcagactg aaagagggag aaataaagac aaggcccccg aggagctgtc caaagatcga    2400
gatgctgaca agagcgtgga gaaggacaag agtagagaga gagaccggga gagagaaaag    2460
```

206

```
gagaataagc gggagtcaag gaaagagaaa aggaaaaagg gatcagaaat tcagagtagt  2520
tctgctttgt atcctgtggg tagggtttcc aaagagaagg ttgttggtga agatgttgcc  2580
acttcatctt ctgccaaaaa agcaacaggg cggaagaagt cttcatcaca tgattctggg  2640
actgatatta cttctgtgac tcttggggat acaacagctg tcaaaaccaa aatacttata  2700
aagaaaggga gaggaaatct ggaaaaaacc aacttggacc tcggcccaac tgccccatcc  2760
ctggagaagg agaaaaccct ctgcctttcc actccttcat ctagcactgt taaacattcc  2820
acttcctcca taggctccat gttggctcag gcagacaagc ttccaatgac tgacaagagg  2880
gttgccagcc tcctaaaaaa ggccaaagct cagctctgca agattgagaa gagtaagagt  2940
cttaaacaaa ccgaccagcc caaagcacag ggtcaagaaa gtgactcatc agagacctct  3000
gtgcgaggac cccggattaa acatgtctgc agaagagcag ctgttgccct tggccgaaaa  3060
cgagctgtgt ttcctgatga catgcccacc ctgagtgcct taccatggga agaacgagaa  3120
aagattttgt cttccatggg gaatgatgac aagtcatcaa ttgctggctc agaagatgct  3180
gaacctcttg ctccacccat caaaccaatt aaacctgtca ctagaaacaa ggcaccccag  3240
gaacctccag taaagaaagg acgtcgatcg aggcggtgtg ggcagtgtcc cggctgccag  3300
gtgcctgagg actgtggtgt ttgtactaat tgcttagata agcccaagtt tggtggtcgc  3360
aatataaaga agcagtgctg caagatgaga aaatgtcaga atctacaatg gatgccttcc  3420
aaagcctacc tgcagaagca agctaaagct gtgaaaaaga aagagaaaaa gtctaagacc  3480
agtgaaaaga aagacagcaa agagagcagt gttgtgaaga acgtggtgga ctctagtcag  3540
aaacctaccc catcagcaag agaggatcct gccccaaaga aaagcagtag tgagcctcct  3600
ccacgaaagc ccgtcgagga aaagagtgaa gaagggaatg tctcggcccc tgggcctgaa  3660
tccaaacagg ccaccactcc agcttccagg aagtcaagca agcaggtctc ccagccagca  3720
ctggtcatcc cgcctcagcc acctactaca ggaccgccaa gaaaagaagt tcccaaaacc  3780
actcctagtg agcccaagaa aaagcagcct ccaccaccag aatcaggtcc agagcagagc  3840
aaacagaaaa aagtggctcc ccgcccaagt atccctgtaa aacaaaaacc aaaagaaaag  3900
gaaaaaccac ctccggtcaa taagcaggag aatgcaggca ctttgaacat cctcagcact  3960
ctctccaatg gcaatagttc taagcaaaaa attccagcag atggagtcca caggatcaga  4020
gtggacttta aggaggattg tgaagcagaa aatgtgtggg agatgggagg cttaggaatc  4080
ttgacttctg ttcctataac acccagggtg gtttgctttc tctgtgccag tagtgggcat  4140
gtagagtttg tgtattgcca agtctgttgt gagcccttcc acaagttttg tttagaggag  4200
aacgagcgcc ctctggagga ccagctggaa aattggtgtt gtcgtcgttg caaattctgt  4260
cacgtttgtg gaaggcaaca tcaggctaca aagcagctgc tggagtgtaa taagtgccga  4320
aacagctatc accctgagtg cctgggacca aactacccca ccaaacccac aaagaagaag  4380
aaagtctgga tctgtaccaa gtgtgttcgc tgtaagagct gtggatccac aactccaggc  4440
aaagggtggg atgcacagtg gtctcatgat ttctcactgt gtcatgattg cgccaagctc  4500
tttgctaaag gaaacttctg ccctctctgt gacaaatgtt atgatgatga tgactatgag  4560
agtaagatga tgcaatgtgg aaagtgtgat cgctgggtcc attccaaatg tgagaatctt  4620
tcaggtacag aagatgagat gtatgagatt ctatctaatc tgccagaaag tgtggcctac  4680
acttgtgtga actgtactga gcggcaccct gcagagtggc gactggccct tgaaaaagag  4740
ctgcagattt ctctgaagca agttctgaca gctttgttga attctcggac taccagccat  4800
ttgctacgct accggcaggc tgccaagcct ccagacttaa atcccgagac agaggagagt  4860
ataccttccc gcagctcccc cgaaggacct gatccaccag ttcttactga ggtcagcaaa  4920
caggatgatc agcagccttt agatctagaa ggagtcaaga ggaagatgga ccaagggaat  4980
tacacatctg tgttggagtt cagtgatgat attgtgaaga tcattcaagc agccattaat  5040
tcagatggag acagccagaa aattaaaaaa gccaacagca tggtcaagtc cttcttcatt  5100
cggcaaatgg aacgtgtttt tccatggttc agtgtcaaaa agtccaggtt ttgggagcca  5160
aataaagtat caagcaacag tgggatgtta ccaaacgcag tgcttccacc ttcacttgac  5220
cataattatg ctcagtggca ggagcgagag gaaaacagcc acactgagca gcctccttta  5280
```

207

```
atgaagaaaa tcattccagc tcccaaaccc aaaggtcctg gagaaccaga ctcaccaact    5340
cctctgcatc ctcctacacc accaattttg agtactgata ggagtcgaga agacagtcca    5400
gagctgaacc cacccccagg catagaagac aatagacagt gtgcgttatg tttgacttat    5460
ggtgatgaca gtgctaatga tgctggtcgt ttactatata ttggccaaaa tgagtggaca    5520
catgtaaatt gtgctttgtg gtcagcggaa gtgtttgaag atgatgacgg atcactaaag    5580
aatgtgcata tggctgtgat caggggcaag cagctgagat gtgaattctg ccaaaagcca    5640
ggagccaccg tgggttgctg tctcacatcc tgcaccagca actatcactt catgtgttcc    5700
cgagccaaga actgtgtctt tctggatgat aaaaaagtat attgccaacg acatcgggat    5760
ttgatcaaag gcgaagtggt tcctgagaat ggatttgaag tttttcagaag agtgtttgtg    5820
gactttgaag gaatcagctt gagaaggaag tttctcaatg gcttggaacc agaaaatatc    5880
cacatgatga ttgggtctat gacaatcgac tgcttaggaa ttctaaatga tctctccgac    5940
tgtgaagata agctctttcc tattggatat cagtgttcca gggtatactg gagcaccaca    6000
gatgctcgca agcgctgtgt atatacatgc aagatagtgg agtgccgtcc tccagtcgta    6060
gagccggata tcaacagcac tgttgaacat gatgaaaaca ggaccattgc ccatagtcca    6120
acatctttta cagaaagttc atcaaaagag agtcaaaaca cagctgaaat tataagtcct    6180
ccatcaccag accgacctcc tcattcacaa acctctggct cctgttatta tcatgtcatc    6240
tcaaaggtcc ccaggattcg aacacccagt tattctccaa cacagagatc ccctggctgt    6300
cgaccgttgc cttctgcagg aagtcctacc ccaaccactc atgaaatagt cacagtaggt    6360
gatcctttac tctcctctgg acttcgaagc attggctcca ggcgtcacag tacctcttcc    6420
ttatcacccc agcggtccaa actccggata atgtctccaa tgagaactgg gaatacttac    6480
tctaggaata atgtttcctc agtctccacc accgggaccg ctactgatct tgaatcaagt    6540
gccaaagtag ttgatcatgt cttagggcca ctgaattcaa gtactagttt agggcaaaac    6600
acttccacct cttcaaattt gcaaaggaca gtggttactg taggcaataa aaacagtcac    6660
ttggatggat cttcatcttc agaaatgaag cagtccagtg cttcagactt ggtgtccaag    6720
agctcctctt taaagggaga gaagaccaaa gtgctgagtt ccaagagctc agagggatct    6780
gcacataatg tggcttaccc tggaattcct aaactggccc cacaggttca taacacaaca    6840
tctagagaac tgaatgttag taaaatcggc tcctttgctg aaccctcttc agtgtcgttt    6900
tcttctaaag aggccctctc cttcccacac ctccatttga gaggcaaag gaatgatcga    6960
gaccaacaca cagattctac ccaatcagca aactcctctc cagatgaaga tactgaagtc    7020
aaaaccttga agctatctgg aatgagcaac agatcatcca ttatcaacga acatatggga    7080
tctagttcca gagataggag acagaaaggg aaaaaatcct gtaaagaaac tttcaaagaa    7140
aagcattcca gtaaatcttt tttggaacct ggtcaggtga caactggtga ggaaggaaac    7200
ttgaagccag agtttatgga tgaggttttg actcctgagt atatgggcca acgaccatgt    7260
aacaatgttt cttctgataa gattggtgat aaaggccttt ctatgccagg agtccccaaa    7320
gctccaccca tgcaagtaga aggatctgcc aaggaattac aggcaccacg gaaacgcaca    7380
gtcaaagtga cactgacacc tctaaaaatg gaaaatgaga gtcaatccaa aaatgccctg    7440
aaagaaagta gtcctgcttc ccctttgcaa atagagtcaa catctcccac agaaccaatt    7500
tcagcctctg aaaatccagg agatggtcca gtggcccaac caagccccaa taatacctca    7560
tgccaggatt ctcaaagtaa caactatcag aatcttccag tacaggacag aaacctaatg    7620
cttccagatg gccccaaacc tcaggaggat ggctctttta aaaggaggta tcccgtcgc    7680
agtgcccgtg cacgttctaa catgtttttt gggcttaccc cactctatgg agtaagatcc    7740
tatggtgaag aagacattcc attctacagc agctcaactg gaagaagcg aggcaagaga    7800
tcagctgaag acaggtgga tggggccgat gacttaagca cttcagatga agacgactta    7860
tactattaca acttcactag aacagtgatt tcttcaggtg gagaggaacg actggcatcc    7920
cataatttat ttcgggagga ggaacagtgt gatcttccaa aaatctcaca gttggatggt    7980
gttgatgatg ggacagagag tgatactagt gtcacagcca caacaaggaa aagcagccag    8040
attccaaaaa gaaatggtaa agaaaatgga acagagaact aaagattga tagacctgaa    8100
gatgctgggg agaaagaaca tgtcactaag agttctgttg gccacaaaaa tgagccaaag    8160
```

208

```
atggataact gccattctgt aagcagagtt aaaacacagg gacaagattc cttggaagct    8220
cagctcagct cattggagtc aagccgcaga gtccacacaa gtaccccctc cgacaaaaat    8280
ttactggaca cctataatac tgagctcctg aaatcagatt cagacaataa caacagtgat    8340
gactgtggga atatcctgcc ttcagacatt atggactttg tactaaagaa tactccatcc    8400
atgcaggctt tgggtgagag cccagagtca tcttcatcag aactcctgaa tcttggtgaa    8460
ggattgggtc ttgacagtaa tcgtgaaaaa gacatgggtc tttttgaagt attttctcag    8520
cagctgccta caacagaacc tgtggatagt agtgtctctt cctctatctc agcagaggaa    8580
cagtttgagt tgcctctaga gctaccatct gatctgtctg tcttgaccac ccggagtccc    8640
actgtcccca gccagaatcc cagtagacta gctgttatct cagactcagg ggagaagaga    8700
gtaaccatca cagaaaaatc tgtagcctcc tctgaaagtg acccagcact gctgagccca    8760
ggagtagatc caactcctga aggccacatg actcctgatc attttatcca aggacacatg    8820
gatgcagacc acatctctag ccctccttgt ggttcagtag agcaaggtca tggcaacaat    8880
caggatttaa ctaggaacag tagcaccccct ggccttcagg tacctgtttc cccaactgtt    8940
cccatccaga accagaagta tgtgcccaat tctactgata gtcctggccc gtctcagatt    9000
tccaatgcag ctgtccagac cactccaccc cacctgaagc cagccactga gaaactcata    9060
gttgttaacc agaacatgca gccactttat gttctccaaa ctcttccaaa tggagtgacc    9120
caaaaaatcc aattgacctc ttctgttagt tctacaccca gtgtgatgga gacaaatact    9180
tcagtattgg gacccatggg aggtggtctc acccttacca caggactaaa tccaagcttg    9240
ccaacttctc aatctttgtt cccttctgct agcaaaggat tgctacccat gtctcatcac    9300
cagcacttac attccttccc tgcagctact caaagtagtt tcccaccaaa catcagcaat    9360
cctccttcag gcctgcttat tggggttcag cctcctccgg atccccaact tttggtttca    9420
gaatccagcc agaggacaga cctcagtacc acagtagcca ctccatcctc tggactcaag    9480
aaaagaccca tatctcgtct acagacccga aagaataaaa aacttgctcc ctctagtacc    9540
ccttcaaaca ttgccccttc tgatgtggtt tctaatatga cattgattaa cttcacaccc    9600
tcccagcttc ctaatcatcc aagtctgtta gatttggggt cacttaatac ttcatctcac    9660
cgaactgtcc ccaacatcat aaaaagatct aaatctagca tcatgtattt tgaaccggca    9720
ccctgttac cacagagtgt gggaggaact gctgccacag cggcaggcac atcaacaata    9780
agccaggata ctagccacct cacatcaggg tctgtgtctg gcttggcatc cagttcctct    9840
gtcttgaatg ttgtatccat gcaaactacc acaaccccta caagtagtgc gtcagttcca    9900
ggacacgtca ccttaaccaa cccaaggttg cttggtaccc cagatattgg ctcaataagc    9960
aatcttttaa tcaaagctag ccagcagagc ctggggattc aggaccagcc tgtggcttta   10020
ccgccaagtt caggaatgtt tccacaactg gggacatcac agaccccctc tactgctgca   10080
ataacagcgg catctagcat ctgtgtgctc ccctccactc agactacggg cataacagcc   10140
gcttcacctt ctggggaagc agacgaacac tatcagcttc agcatgtgaa ccagctcctt   10200
gccagcaaaa ctgggattca ttcttcccag cgtgatcttg attctgcttc agggccccag   10260
gtatccaact ttacccagac ggtagacgct cctaatagca tgggactgga gcagaacaag   10320
gctttatcct cagctgtgca agccagcccc acctctcctg ggggttctcc atcctctcca   10380
tcttctggac agcggtcagc aagcccttca gtgccgggtc ccactaaacc caaaccaaaa   10440
accaaacggt ttcagctgcc tctagacaaa gggaatggca agaagcacaa tgtttcccat   10500
ttgcggacca gttcttctga agcacacatt ccagaccaag aaacgacatc cctgacctca   10560
ggcacaggga ctccaggagc agaggctgag cagcaggata cagctagcgt ggagcagtcc   10620
tcccagaagg agtgtgggca acctgcaggg caagtcgctg ttcttccgga agttcaggtg   10680
acccaaaatc cagcaaatga acaagaaagt gcagaaccta aaacagtgga agaagaggaa   10740
agtaatttca gctccccact gatgctttgg cttcagcaag aacaaaagcg gaaggaaagc   10800
attactgaga aaaaacccaa gaaaggactt gtttttgaaa tttccagtga tgatggcttt   10860
cagatctgtg cagaaagtat tgaagatgcc tggaagtcat tgacagataa agtccaggaa   10920
gctcgatcaa atgcccgcct aaagcagctc tcatttgcag gtgttaacgg tttgaggatg   10980
```

209

```
ctggggattc tccatgatgc agttgtgttc ctcattgagc agctgtctgg tgccaagcac   11040
tgtcgaaatt acaaattccg tttccacaag ccagaggagg ccaatgaacc ccccttgaac   11100
cctcacggct cagccagggc tgaagtccac ctcaggaagt cagcatttga catgtttaac   11160
ttcctggctt ctaaacatcg tcagcctcct gaatacaacc ccaatgatga agaagaggag   11220
gaggtacagc tgaagtcagc tcggagggca actagcatgg atctgccaat gcccatgcgc   11280
ttccggcact taaaaaagac ttctaaggag gcagttggtg tctacaggtc tcccatccat   11340
ggccggggtc ttttctgtaa gagaaacatt gatgcaggtg agatggtgat tgagtatgcc   11400
ggcaacgtca tccgctccat ccagactgac aagcgggaaa gtattacga cagcaagggc    11460
attggttgct atatgttccg aattgatgac tcagaggtag tggatgccac catgcatgga   11520
aatgctgcac gcttcatcaa tcactcgtgt gagcctaact gctattctcg ggtcatcaat   11580
attgatgggc agaagcacat tgtcatcttt gccatgcgta agatctaccg aggagaggaa   11640
ctcacttacg actataagtt ccccattgag gatgccagca acaagctgcc ctgcaactgt   11700
ggcgccaaga aatgccggaa gttcctaaac taaagctgct cttctccccc agtgttggag   11760
tgcaaggagg cggggccatc caaagcaacg ctgaaggcct tttccagcag ctgggagctc   11820
ccggattgcg tggcacagct gaggggcctc tgtgatggct gagctctctt atgtcctata   11880
ctcacatcag acatgtgatc atagtcccag agacagagtt gaggtctcga agaaaagatc   11940
catgatcggc tttctcctgg ggccctcca attgtttact gttagaaagt gggaatgggg    12000
tccctagcag acttgcctgg aaggagccta ttatagaggg ttggttatgt gggagattg    12060
ggcctgaatt tctccacaga aataagttgc catcctcagg ttggcccttt cccaagcact   12120
gtaagtgagt gggtcagcca aagccccaaa tggaggggttg gttagattcc tgacagtttg   12180
ccagccagcc gccacctaca gcgtctgtcg aacaaacaga ggtctggtgg ttttccctac   12240
tgtcctccca ctcgagagtt cacttctggt tgggagacag gattcctagc acctccggtg   12300
tcaaaaggct gtcatggggt tgtgccaatt aattaccaaa cattgagcct gcaggctttg   12360
agtgggagtg ttgcccccag gagccttatc tcagccaatt acctttcttg acagtaggag   12420
cggcttccct ctcccattcc ctcttcactc cctttcttc ctttcccctg tcttcatgcc    12480
actgctttcc catgcttctt tcggttgtag gggagactga ctgcctgctc aaggacactc   12540
cctgctgggc ataggatgtg cctgcaaaaa gttccctgag cctgtaagca ctccaggtgg   12600
ggaagtggac aggagccatt ggtcataacc agacagaatt tggaaacatt ttcataaagc   12660
tccatggaga gttttaaaga aacatatgta gcatgatttt gtaggagagg aaaaagatta   12720
tttaaatagg atttaaatca tgcaacaacg agagtatcac agccaggatg acccttgggt   12780
cccattccta agacatggtt actttatttt ccccttgtta agacatagga agacttaatt   12840
tttaaacggt cagtgtccag ttgaaggcag aacactaatc agatttcaag gcccacaact   12900
tggggactag accaccttat gttgaggaa ctctgccacc tgcgtgcaac ccacagctaa    12960
agtaaattca atgacactac tgccctgatt actccttagg atgtggtcaa aacagcatca   13020
aatgtttctt ctcttccttt ccccaagaca gagtcctgaa cctgttaaat taagtcattg   13080
gattttactc tgttctgttt acagtttact atttaaggtt ttataaatgt aaatatattt   13140
tgtatatttt tctatgagaa gcacttcata gggagaagca cttatgacaa ggctattttt   13200
taaaccgcgg tattatccta atttaaaaga agatcggttt ttaataattt tttattttca   13260
taggatgaag ttagagaaaa tattcagctg tacacacaaa gtctggtttt tcctgcccaa   13320
cttcccctg gaaggtgtac tttttgttgt ttaatgtgta gcttgtttgt gccctgttga    13380
cataaatgtt tcctgggttt gctctttgac aataaatgga gaaggaaggt cacccaactc   13440
cattgggcca ctcccctcct tccctattg aagctcctca aaaggctaca gtaatatctt    13500
gatacaacag attctcttct ttcccgcctc tctcctttcc ggcgcaactt ccagagtggt   13560
gggagacggc aatctttaca tttccctcat ctttcttact tcagagttag caaacaacaa   13620
gttgaatggc aacttgacat ttttgcatca ccatctgcct cataggccac tctttccttt   13680
ccctctgccc accaagtcct catatctgca gagaacccat tgatcacctt gtgccctctt   13740
ttggggcagc ctgttgaaac tgaagcacag tctgaccact cacgataaag cagattttct   13800
ctgcctctgc cacaaggttt cagagtagtg tagtccaagt agagggtggg gcacccttt   13860
```

210

```
ctcgccgcaa gaagcccatt cctatggaag tctagcaaag caatacgact cagcccagca    13920
ctctctgccc caggactcat ggctctgctg tgccttccat cctgggctcc cttctctcct    13980
gtgaccttaa gaactttgtc tggtggcttt gctggaacat tgtcactgtt ttcactgtca    14040
tgcagggagc ccagcactgt ggccaggatg gcagagactt ccttgtcatc atggagaagt    14100
gccagcaggg gactgggaaa agcactctac ccagacctca cctcccttcc tccttttgcc    14160
catgaacaag atgcagtggc cctaggggtt ccactagtgt ctgctttcct ttattattgc    14220
actgtgtgag gttttttttgt aaatccttgt attcc                              14255

<210>   283
<211>   3863
<212>   DNA
<213>   Homo sapiens

<400>   283
gagatggaga ctcgctctgt cacccaggct ggagtgcaat ggtgagatct cggctcactg      60
caacctccac ctcctgggtt caggcgattc tcctgcctcc caatcctagt agctgggagt     120
atcaggtgag tcgcagcccc aacgcacgcc cggcataatt ttttattttt tagtcgagac     180
gggtttcacc acgttggcca ggatggtctc gaactcctga cctcaggtga tccacccgcc     240
tcggcctccc aaagcactgg gattacaggc gtgagccacc gcgcccggcc tccatatcca     300
ttcttgggaa cacttgttgc ttagctgaac ggagcccgca tcctgctgtg gcggcactcg     360
ccccggtgct ggtctgagca gacgcctcct ttctcttgca gaagaagtaa gtgaggaaga     420
aatgagtgaa gatgaagaac gagaaaatga aaaccacctc ttggttgttc cagagtcacg     480
gttcgaccga gattccgggg agagtgaaga agcagaggaa gaagtgggtg agggaacgcc     540
gcagagcagc gccctgacag agggcgacta tgtgcccgac tcccctgccc tgtcgcccat     600
cgagctcaag caggagctgc ccaagtacct gccggccctg cagggctgcc ggagcgtcga     660
ggagttccag tgcctgaaca ggatcgagga gggcacctat ggagtggtct acagagcaaa     720
agacaagaaa acagatgaaa ttgtggctct aaagcggctg aagatggaga aggagaagga     780
gggcttcccg atcacgtcgc tgagggagat caacaccatc ctcaaggccc agcatcccaa     840
catcgtcacc gttagagaga ttgtggtggg cagcaacatg gacaagatct acatcgtgat     900
gaactatgtg gagcacgacc tcaagagcct gatggagacc atgaaacagc ccttcctgcc     960
aggggaggtg aagaccctga tgatccagct gctgcgtggg gtgaaacacc tgcacgacaa    1020
ctggatcctg caccgtgacc tcaagacgtc caacctgctg ctgagccacg ccggcatcct    1080
caaggtgggt gacttcgggc tggcgcggga gtacggatcc cctctgaagg cctacacccc    1140
ggtcgtggtg accctgtggt accgcgcccc agagctgctg cttggtgcca aggaatactc    1200
cacggccgtg gacatgtggt cagtgggttg catcttcggg gagctgctga ctcagaagcc    1260
tctgttcccc gggaagtcag aaatcgatca gatcaacaag gtgttcaagg atctggggac    1320
ccctagtgag aaaatctggc ccggctacag cgagctccca gcagtcaaga agatgacctt    1380
cagcgagcac ccctacaaca acctccgcaa gcgcttcggg gctctgctct cagaccaggg    1440
cttcgacctc atgaacaagt cctgacccta cttccccggg aggaggatca gcgctgagga    1500
cggcctcaag catgagtatt ccgcgagac cccctcccc atcgacccct ccatgttccc    1560
cacgtggccc gccaagagcg agcagcagcg tgtgaagcgg ggcaccagcc cgaggcccc     1620
tgagggaggc ctgggctaca gccagctggg tgacgacgac ctgaaggaga cgggcttcca    1680
ccttaccacc acgaaccagg gggcctctgc cgcgggcccc ggcttcagcc tcaagttctg    1740
aaggtcagag tggacccccgt catggggaga actcagccgg gaccacaggc gtggctactg    1800
cggctggagc tgcgatgaga ctcggaactc ctcgtcttac tttgtgctcc atgttttgtt    1860
tttgtatttt ggtttgtaaa tttgtagaat taaatcattt tccttgtaaa cccgaattcg    1920
ggaccatcac agtttgatta gcctcagcct caagagctgg cacatgcttg tgaacttgtg    1980
ctttcatatt ttcctaacct gtgtgctctt tgtgggagga ataacccaga ctaggaatgc    2040
```

211

```
cagcatctgc caagcagttg ggataattct tcactattcc acccttgcca cagtactatg    2100
ggtaggagtg acagctcgaa atatctacaa acaagtcact aaaaaagcta aaagatgcca    2160
ggatcctgat gaaccaccac ctccaccaag accaatgctc agattttacc tgattggtgg    2220
tggtatcccc atcattgttt gcggcataac tgcaggcagc gaacattaag aattacggca    2280
gtcggccaaa cgcaccctat tgctggatgg catgggaacc ctccttggga gccttctatg    2340
ggccagccag cttcagcact tttgtaaact gcatgtactt tctgagcata tttattcagt    2400
tgaaaagaca ccctgagcgc aaatatgagc ttaaggagcc cactggccag caacagagat    2460
tggcatgcca atgaaaatgg cgaaataaat catcaggaaa tcatttcttt gtctctgatt    2520
tctacatcag ccttggaaaa tgagcacact tttcattctc agctcttggg gccagcctta    2580
ctttgctctt atatgttgca ctgtggatgt ttggggcttt ggctgtttct ttgtattacc    2640
ctttggactt ggttttttagc ttcgtttttg gagccacaag tttaagcttc agtgcattct    2700
tcatggtcca ccattgtgtt aataggaggg atcttagact tgcgtggatc atgacttgct    2760
gcccaggacg gagctcgtat tcagtgcaag tcaacgtcca gcccccaac tctaatggga     2820
cgaatggaga ggcacccaaa tgccccaata gcagtgcgga gtcttcatgc acaaacaaaa    2880
gtgattcaag cttcaaaatt cctcccaggg ctgcaaatta acaaacttgc aggcggctgc    2940
agctcagtgc catgccaatt ctttaccttt gaactccacc cctcagcttg ataatagtct    3000
gacagaacat tcaatggaca atgatattaa aatgcacgct ggcgccttta gaagttcagt    3060
ttcgaacaaa tgtgcactca agccgccacc ataaaaacag aagtaaagga caccgggcaa    3120
gccgactcac agtcctgaga gaatatgcct acgatgtccc aacgagcgtg gaaggaagcg    3180
tgcagaacgg cttacctaaa agccggctgg gcaataacga aggacactcg aggagccgaa    3240
gagcttattt agcctacaga gagagacagt acaacccacc ccagcaagac agcagcgatg    3300
cttgtagcac acttcccaaa agtagcagaa attttgaaaa gccagtttca accactagta    3360
aaaagatgcg ttaagggaag ccagctgtgg ttgaacttca aaatcagcaa aaatcttatg    3420
gcctcaactt ggccattcag aatggaccaa ttaaaagcaa tgggcaggag ggacccttgc    3480
tcggtaccga tagcactggc aatgttacca ctggattatg gaaacacgaa actactgtgt    3540
aacattgctg ggcttcctag gcagaaattc atataaactg tgatactcac attccttgaa    3600
gctatgagca tttaaaaact gtttacagcc accataggga ttcaaaagaa tttggaataa    3660
actttgaagt tttggatttt acttattttt atccccaaat tgttgctatt ttttaggatc    3720
tgaaacaaaa tctttctaaa acattgtttt agttgtcaaa gcaccaacag gacattttgg    3780
gatgtgaaat gtaatttctt ggaatctgta atttgtactt aatatttcag gcttgtattt    3840
aatataataa ataggtgttt gtt                                            3863

<210>    284
<211>    5769
<212>    DNA
<213>    Homo sapiens

<220>
<221>    misc_feature
<223>    n=a,t,g or c

<400>    284
gagctctcca tgcacacctg ttactgtttc tgttttttacc tgtaaatatc tgtctctgac     60
ttccatgtct catgcacctc tatagggcaa agactgtgtc ttaaacatca cggtagcctc    120
agcatgttgt gcaatcaagg tttttttgtt tttgttcttt gtttttttttt tggtattagc    180
tttatttgta tcattttgaa atttttatca aaaaagcagc gtgcctgctg tggttcccat    240
cctctgggat ttaggaatct ttacccgatt ctccatccaa gtctgtcttt cgtattctag    300
gctcttccta aagttgtcat tcacatatac cctccagaat tttatagggt gtataatctg    360
taacaactcg gaggaagcca attgcccttt agaaatatgg ctgcaattgc ctcacttcct    420
```

212

```
gtgtcatgtg actctcctag tcatcacatg acccatccac attgggaagc cagaattact      480
tgcaggagta acctagtgcc tatagctatg gcaggtacct gcatccttgt ttttgtttag      540
tggatcctct atccttcaga gactctggaa cccctgtgct cttctcctca tctagtgacc      600
ctgaggtgat ggagttttca agtccttcca gagaggtaag agagagagct cccaatcagc      660
attgtcacag tgcttctgga atcctggcac tggaatttaa tgaatgacag actctctttg      720
aatccagggc catcatggct ctttgagcaa ggcacagatg gaggggaggg tcgaagttga      780
aatgggtggg aagagtggtg gggagcatcc tgatttgggg tgggcagaga gttgtcatca      840
gaagggttgc agggagagct gcacccaggt gtctgtgggc cttgtcctaa tgaatgtggg      900
agaccaggcc atgggcaccc aaaggcagct aagccctgcc cgggagagta gttgaggggt      960
ggagagggac ttgcttttca gtcattcctc attctgtcct caggaatgtc ccaagccttc     1020
gggtagggta agcatcatgg ctggcagcct cacaggattg cttctacttc aggcagtgtc     1080
gtgggcatca gatgagtgag tcaaggcagt ggggaggtag cacagagcct cccttctgcc     1140
tcatagtcct ttggtagcct tccagtaagc tggtggtaga cttttagtag gtgctcaata     1200
aatccttttg agtgactgag accaactttg gggtgaggat ttttgaaacc gtcttcagtc     1260
tctccaaaca gctgtgtccg ttctccacat ccttgtcaga cctcacctct gcttgtgctc     1320
cctccctccc aggtggtgcc cctgcatccc taaaagcttc agtacagctc ggtggtctgt     1380
gtctgcaatg ccacatactg tgactcttga ccccccgacc tttcctgccc taggtgcctt     1440
cagccgctac aagagcagaa gcagtgggca ttggatggag ctgagtacag gaccatacag     1500
gctaattgca ccggcacagg taaccattac acccttcacc ccccgggcca ggctgggtcc     1560
tcctagaggt aaacggtgtc agtgatcacc atggagtttc tccctgggca ctgataaccc     1620
tgtggatgtc ctcaggcctg ctactgatcc tgcagccaga agttccagaa agtgaaggga     1680
tttggagggg ccgtgacaga tgcaggtgcc ctcaacatcc ttgccctgtc accccctgcc     1740
cagaatttgc tacttaaatg gtacttctct gaagaagatg aggaggaagg ggacaggatg     1800
acatagagcc actgacactt ttctttgcca attctttgga ccctgacttc tgcccatccc     1860
tgacatttgg ttcctgtctt aatgccagtg aaataagatt tcgccgccta tcatctgcta     1920
actgctacgg actcaggctc agaaaggcct gcgcttcacc caggtgccag cctccacagg     1980
ttccaaccca ggagcccaag ttccttttgg ccctgactca gacactatta ggactggcaa     2040
gtgataagca gagtcccata ctctcctatt gactcggact accatatctt gatcatcctt     2100
ttctgtagga atcggatata acatcatctg ggtacccatg gccagctgtg acttctccat     2160
ccgcacctac acctatgcag acacccctga tgatttccag ttgcacaact tcagcctccc     2220
agaggaagat accaagctca aggtaggcat tctagctttt tcaggccctg agggccctga     2280
tgtctggggg ttgagaaact gtagggtagg tctgcttgta cagacatttt gtcccctgct     2340
gttttgtcct gggggtggga gggtggggc taatggctga accggatgca ctggttgggc      2400
tagtatgtgt tccaactctg ggtgcttctc tcttcactac ctttgtctct agataccct     2460
gattcaccga gccctgcagt tggcccagcg tcccgtttca ctccttgcca gcccctggac     2520
atcacccact tggctcaaga ccaggggagc ggggaatggg aaggggccac tcaagggaca     2580
gcccagagac atctaccacc agacctgggc cagatacatt gtgaagtaag ggatcaacaa     2640
ggatgtggga tcaggactgg cctccccttt ggccatgctg atctgtgtcc caaccctcaa     2700
cctggttcca cttccagatc tgcctgtcct cagctcacct ttctaccttc tgggcctttc     2760
aaccttgggc ctgtcagtct tgcccactcc atcaggcttc ctgttctctc ggtctggccc     2820
actttcttgg ctggatcatt catgaccttt ctcttgccag gttcctggat gcctatgctg     2880
agcacaagtt acagttctgg gcagtgacag gtgaaaatga gccttctgct gggctgttga     2940
gtggataccc cttccagtgc ctgggcttca cccctgaaca tcagcgagac ttcattgccc     3000
gtgacctagg tcctaccctt gccaacggta ctcaccacaa tgtccgccta tcatgctgg      3060
atgaccaacg cttgctgctg ccccactggg caaaggtggt aaggcctgga cctccatggt     3120
gctccagtga ccttcaaatc cagcatccaa atgattggct cccaaactta gagggatttt     3180
tctacccaac tatggatccc tagagcacca ttccccggga cctccagggt gccatggatc     3240
```

```
ccacagttgg gacttgaaac ctctctaggg ctgggggtgg tagctcatgg ctataattcc   3300
agcactttgg gaaccaaggt gggtggatca cttgaaccta aggagttcaa gatgagcctg   3360
ggaaacatgg tgaaacccta actctacaaa aaaaaaaata gaaaagttag ccgggtgtgg   3420
tggtggcacg ctatagtccc agtattctgg aggctaaggc gggaggttta gttgagccta   3480
ggaatttcag gctgcagtga gctatgattg tgccactgta ctccagcctg tgtgacagag   3540
ggagaccctg tctcaaaaac aaaaacaaaa aatccctccc aaaacctctg tagttgcatt   3600
cttcccacca cctaattcag gattcctaca agaggaacta gaagttccag aagcctgtgg   3660
gcagggtcca gggtgacttg ttcttccttt gcaggtactg acagacccag aagcagctaa   3720
gtatgttcat ggtattgctg tacattggta cctggacttt ctggctccag ccaaagccac   3780
cctaagggag acacaccacc tgttccccaa caccatgctc tttgcctcag aggcctgtgt   3840
gggttccaag ttctgggagc agagtgtgcg gctaggctcc tgggatcgag ggatgcagta   3900
cagccacagc atcatcacag taagccaccc cagtctccct tcctgcaaag gagacctcag   3960
acccattagt agtctcacca aagactgata gaagcccttc ctgtccagct ttccccaggt   4020
agcctgccct tttgcgcaac tctggggaac catgattccc tgtcttgcct ttccttcaca   4080
ggtctgcaca cctcattgcc ccttttgcaa ctactgaggc acttgcagct gcctcagact   4140
tctcagctcc ccttgagatg cctggatctt cacacccca actccttagc tactaaggaa    4200
tgtgccctca cagggctgac ctacccacag ctgcctctcc cacatgtgac ccttacctac   4260
actctctggg gaccccccagt gttgagcctt tgtctctttg cctttgtcct taccctagaa   4320
cctcctgtac catgtggtcg gctggaccga ctggaaccca tcattgtaga catcaccaag   4380
cacacgtttt acaaacagcc catgttctac caccttggcc acttcaggtg agtggagggc   4440
gggcacccc attccatacc aggcctatca tctcctacat cggatggctt acatcactct    4500
acaccacgag ggagcaggaa ggtgttcagg gtggaacctc ggaagaggca cacccatccc   4560
cttttgcacc atggaggcag gaagtgacta ggtagcaaca gaaaacccca atgcctgagg   4620
ctggactgcg atgcagaaaa gcagggtcag tgcccagcag catggctcca ggcctagaga   4680
gccagggcag agcctttgca ggagttatgg ggtgggtccg tgggtgggcg acttcttaga   4740
tgagggtttc atgggaggta ccccgaggga ctctgaccat ctgttcccac attcagcaag   4800
ttcattcctg agggctccca gagagtgggg ctggttgcca gtcagaagaa cgacccggac   4860
gcagtggcac tgatgcatcc cgatggctct cctgttgtgg tcgtcctaaa ccggtgaggg   4920
caatggtgag gtctgggaag tgggctgaag acagcgttgg gggccttggc aggatcacac   4980
tctcagcttc tcctccctgc tccctagctc ctctaaggat gtgcctctta ccatcaagga   5040
tcctgctgtg ggcttcctgg agacaatctc acctggctac tccattcaca cctacctgtg   5100
gcgtcgccag tgatggagca gatactcaag gaggcactgg gctcagcctg ggcattaaag   5160
ggacagagtc agctcacacg ctgtctgtga ctaaagaggg cacaacaggg ccagtgtgag   5220
cttacagcga cgtaagccca ggggcaatgg tttgggtgac tcactttccc ctctaggtgg   5280
tgcccagggc tggaggcccc tagaaaaaga tcagtaagcc ccagtgtccc cccagccccc   5340
atgcttatgt gaacatgcgc tgtgtgctgc ttgctttgga aactggcctg ggtccaggcc   5400
tagggtgagc tcactgtccg tacaaacaca agatcagggc tgagggtaag gaaaagaaga   5460
gactaggaaa gctgggccca aaactggaga ctgtttgtct ttcctggaga tnnnnnnnctg   5520
ggcccgtgga gcagcagtgt cagcatcagg gcggaagcct taaagcagca gcgggtgtgc   5580
ccaggcaccc agatgattcc tatggcacca gccaggaaaa atggcagctc ttaaaggaga   5640
aaatgtttga gcccagtcag tgtgagtggc tttattctgg gtggcagcac ccgtgtccgg   5700
ctgtaccaac aacgaggagc acgggggcct ctggaagtca tgagagtaga aaaaccagtc   5760
ttggggagt                                                          5769
```

<210> 285
<211> 1196
<212> DNA
<213> Homo sapiens

214

<400> 285

```
gacttcggtt ccggtctctg cagcagccgt gatcgcttag tggagtgctt agggtagttg      60
gccaggatgc cgaatatcaa aatcttcagc ggcagttccc accaggactt atctcagaaa     120
attgctgacc gcctgggcct ggagctaggc aaggtggtga ctaagaagtt cagcaaccag     180
gagacctgtg tggaaatcgg tgaaagtgta cgtggagagg atgtctacat tgttcagagt     240
ggttgtggcg aaatcaatga caatttaatg gagcttttga tcatgattaa tgcctgcaag     300
attgcttcag ccagccgggt tactgcagtc atcccatgct tcccttatgc ccggcaggat     360
aagaaggata agagccgggc gccaatctca gccaagcttg ttgcaaatat gctatctgta     420
gcaggtgcag atcatattat caccatggac ctacatgctt ctcaaattca gggctttttt     480
gatatcccag tagacaattt gtatgcagag ccggctgtcc taaagtggat aagggagaat     540
atctctgagt ggaggaactg cactattgtc tcacctgatg ctggtggagc taagagagtg     600
acctccattg cagacaggct gaatgtggac tttgccttga ttcacaaaga acggaagaag     660
gccaatgaag tggaccgcat ggtgcttgtg ggagatgtga aggatcgggt ggccatcctt     720
gtggatgaca tggctgacac ttgtggcaca atctgccatg cagctgacaa acttctctca     780
gctggcgcca ccagagttta tgccatcttg actcatggaa tcttctccgg tcctgctatt     840
tctcgcatca acaacgcatg ctttgaggca gtagtagtca ccaataccat acctcaggag     900
gacaagatga agcattgctc caaaatacag gtgattgaca tctctatgat ccttgcagaa     960
gccatcagga gaactcacaa tggagaatcc gtttcttacc tattcagcca tgtcccttta    1020
taatagagta aggtattgat gacaaattca gcagaagacc cggcttgctc cagtgtagct    1080
ttctacatcc cacatcagga tattagaggt tatccgaact ggggaaagac ggattgagat    1140
taactgctgg acctcctacc tgcattatct cattctggct ccttgataa ttctgt        1196
```

<210> 286

<211> 6226

<212> DNA

<213> Homo sapiens

<400> 286

```
cgccgcccga ggagtcgtcc gacagcgagc ccgaggcgga gcccggctcc ccacagaagc      60
tcatccgcaa ggtgtccacg tcgggtcaga tccgacagaa gaccatcatc aaagagggga     120
tgctgaccaa acagaacaat tcattccagc gatcaaaaag gagatacttt aagcttcgag     180
ggcgaacgct ttactatgcc aaaacggcaa agtcaatcat atttgatgag gtggatctga     240
cagatgccag cgtagctgaa tccagtacca aaaacgtcaa caacagtttt acggtcataa     300
ctccatgcag gaagctcatc ttgtgtgctg ataacagaaa agaaatggaa gattggattg     360
cagcattaaa gactgtgcag aacagggagc actttgagcc cacccagtac agcatggacc     420
acttctcagg gatgcacaat tggtacgcct gttcccacgc gaggccgacc tactgcaatg     480
tgtgccgtga ggctctgtct ggggtcacgt cgcacgggct gtcctgcgag gtgtgcaaat     540
ttaaggccca caagcgctgt gctgtgcgtg caaccaataa ctgcaagtgg accacactgg     600
cctcgatcgg gaaggacatc attgaagatg cagatgggat tgcaatgccc caccagtggt     660
tggaaggaaa cctacctgtg agcgccaagt gcactgtgtg cgacaagacc tgtggcagtg     720
tgctgcgcct gcaggactgg cgctgcctct ggtgcaaggc catggttcac acatcgtgta     780
aagaatcctt gctgaccaag tgcccacttg cctgtgcaa agtgtcagtc atcccaccca     840
cggctctcaa cagcatcgac tccgatgggt tctggaaggc cagctgtcct ccttcttgca     900
caagcccact gttggtcttc gtcaattcaa aaagtgggga caaccagggt gtgaagttcc     960
tcagaagatt caaacagcta ctaaaccccg cccaggtctt cgacctcatg aacggaggcc    1020
cacacctcgg cttacggtta ttccagaagt ttgacacatt ccggattctg gtttgtggcg    1080
gggatggaag tgttggctgg gtcctctccg aaatcgacag cctcaacctt cataaacagt    1140
gtcagctggg agtgctgccg ctcggcacag gaacgactt ggcccgagta ctgggctggg    1200
```

215

```
gctcagcctg cgatgacgac acccagctcc cccagatctt ggagaagttg gagagagcca    1260
gcaccaagat gctggacagg tggagcgtca tggcatacga ggccaagctc ccccggcagg    1320
cctcctcctc taccgtcacc gaagacttca gcgaggattc cgaggtacag cagattctct    1380
tctatgaaga ctcggttgca gcccaccttt ctaaaatcct cacctcggac cagcactcgg    1440
tggtcatctc ctcggccaaa gtgctctgtg agacggtgaa ggacttcgtg gcacgggtgg    1500
ggaaggccta tgagaagacg accgagagct cggaggagtc agaggtcatg gccaagaagt    1560
gctctgtcct gaaagagaag ctggattccc ttctcaagac cttggacgat gagtcccagg    1620
cctcgtcctc tctgcccaac ccgcccccca ccattgccga ggaggctgaa gatggagatg    1680
ggtcgggcag catctgcggt tccaccggag accgcttggt ggcatcagct tgcccggccc    1740
ggccgcagat attccggcct cgagaacagc tcatgctgag agccaacagc ctgaagaaag    1800
caattcgtca gatcatagaa cacacagaaa aagctgtcga tgagcagaat gcccagaccc    1860
aggagcagga gggcttcgtc ctgggcctct ctgagtcaga ggagaagatg gaccacagag    1920
tgtgcccacc actgtcccac agcgagagct tcggggtccc caaggggagg agccagcgca    1980
aagtgtcgaa atctccgtgt gaaaagctga tcagcaaagg gagtctgtcc ctaggcagtt    2040
ctgcttccct tccgccccag ccgggaagcc gggacggctt gcctgcgctc aacaccaaga    2100
tcctgtaccc aaatgtccgg gctggaatgt ctggttcctt acccggtggc tcagtcatca    2160
gtcgcctgtt aattaatgct gatcccttca actctgaacc agaaacccta gagtattaca    2220
cggagaaatg tgtcatgaac aactattttg gcattggcct ggatgcgaag atatccctgg    2280
actttaacaa caagcgcgat gagcacccag agaagtgcag gagccgaacc aagaacatga    2340
tgtggtatgg agttcttgga accaaagagt tgctgcacag aacctacaag aacctggagc    2400
aaaaggtctt gctggagtgt gacgggcgac ccatcccact ccccagtctt cagggaattg    2460
ctgtccttaa cattcccagc tatgccggag gaaccaactt ctgggggggt accaaggaag    2520
atgatacttt cgcagctcca tcattcgatg acaagattct ggaggtggtc gccgtgttcg    2580
gcagcatgca gatggccgtc tctcgagtca tcaggctaca gcatcatcgg atcgcccagt    2640
gtcgcacggt gaagatctcc atccttgggg atgagggcgt gcctgtgcag gtggacggag    2700
aggcctgggt ccagccgcca gggtacattc ggattgtcca caagaaccgg gcacagacac    2760
tgaccagaga cagggcattt gagagcaccc tgaagtcctg ggaagacaag cagaagtgcg    2820
agctgccccg ccctccatcc tgttccctgc acccggagat gctgtccgag gaggaggcca    2880
cccagatgga ccagtttggg caggcagcag gggtcctcat tcacagtatc cgagaaatag    2940
ctcagtctca ccgggacatg gagcaggaac tggcccacgc cgtcaatgcc agctccaagt    3000
ccatggaccg tgtgtatggc aagcccagaa ccacagaggg gctcaactgc agcttcgtcc    3060
tggaaatggt gaataacttc agagctctgc gcagtgagac ggagctgctg ctgtctggga    3120
agatggccct gcagctggat ccgcctcaga aggagcagct ggggagtgct cttgccgaga    3180
tggaccgaca gctcaggagg ctggcagaca ccccgtggct ctgccagtcc gcagagcccg    3240
gcgacgaaga gagtgtgatg ctggatcttg ccaagcgcag tcgcagtggt aaattccgcc    3300
tcgtgaccaa gtttaaaaag gagaaaaaca acaagaacaa agaagctcac agtagcctgg    3360
gagccccggt tcacctctgg gggacagagg aggttgctgc ctggctggag cacctcagtc    3420
tctgtgagta taaggacatc ttcacacggc acgacatccg gggctctgag ctcctgcacc    3480
tggagcggag ggacctcaag gacctgggcg tgaccaaggt gggccacatg aagaggatcc    3540
tgtgtggcat caaggagctg agccgcagcg cccccgccgt cgaggcctag cctctgtcct    3600
ctcagcctgt ggcctccaca tccccgccgc cgaggcctag cctccgccct tcagcctgt    3660
ggcctctgcg cctcctgcca ctgaggccct gggcagatgc tgcagcccgc ccccttctca    3720
tggtgctact tcctctgtca gctacagaaa gcctccgtga caccgtccac cagagctctg    3780
gggtctcgaa cataacaaca cagctacctt tgaaacaaca ctttctccag ctcagagtca    3840
cctggggcac atgtgtcacg gccactcagc tctcgcccgc ctgtgctgtg ggccagggaa    3900
tccagcggcg tctggcctcc tgggcactgc ttgcctggcc tcgtgcttgg attgtcccgg    3960
gggctcctct ccgtgtgtcc ttctgtggcc gcaccgtgtg gctccgcctc ctggcccca    4020
gccagttctc agaaacgtgg ctggggccca gcacagcagc ctgcaagggc ccctgtttgt    4080
```

216

```
tgatgcagct tttgttgaac aaaaatcgtg ctctttcctg gtttgaaagt agcatggatg      4140
tttccagtct tgttgattgt aatttgacgt gaagagaaaa aaaaattcct cctgcgtgag      4200
ccaaggcagc gggtgctgtt tcccaggcgg ggagcccctc cctgggtgtc acagggcctg      4260
tgctcctccc tcctccatcc tctctcctcc cgctcctccc tcccccact gtgggctggg      4320
gacgcctgcc cttctgtctc cggacgctct aggcgagttc agcttggggt gtgagtgaga      4380
cagctcgcca gctgcatccc tgcagacaga ggatgtgtgt ccacatgagt gtttctgtgt      4440
gggaaatgct tcctggctct gggaaacttt ttctgcccat tctgtggttc ccagggagcg      4500
tggccctggt gggccagggg tggtttgacc tcttcagccc gtccggtggc ctggaggccg      4560
gaggctctcc tgagtgtctg cccctgcagt ggcttcttgt cgcctgctgc tgggcgtgat      4620
gtcgctggag gtgctggcag ggactctgat ttggtggtcc gcgctgcccc tgccctgcct      4680
ctgtcctggc tctgaactag tagatgatgg tgccagaggg cagggagctc gcctggggag      4740
agggctgtgc cccgtaggga cagtgcccag gtgaaggatg cccctggtcc tccagggcac      4800
tgactttgcc cttttttccc gttgatagtc atggctcaga ggtgcttgta aatgtcttgg      4860
gaagaggttt ctgtaacccc tgccctggtg tgaggaggaa atggctctgg cctggctgcc      4920
tggccgtggc ttctctttgg ctcccaaaga gaaggacagt gttgggagta tctgccgtgg      4980
cttctctttg gctcccaaag agaaggacag tgttgggagt atctgccggc gctgtccagg      5040
tcctttagtc agcgtcactc catctgatgt gcagaagctg ggctgcacct gcggggtgg      5100
gcatagaccg ggctgggtct gcagcagccc ctggtcctga gcaggcggca gtgaacagca      5160
ctggcccacc tcccactcac agcccctctg tccctctgc agtgcaccca ggtgggcccc      5220
tctgcgtgcc tttgggtgct ccctctcgt ggtcgttctg gcccgaggcc cttagagtat      5280
ggaggctgag ccaggccttg ggtttcccca gcacagcctc ctgtcgctgc atgcgacgtg      5340
ttgggatttt tggatgaaag actctcccac gctctgttgg tggacttagc tgcctcactg      5400
gaagtgatgt gggtggaagg tggttgtatg ttacctttc cacctctcat tgtttccc      5460
agaacattgt agatggggt tggcagaggg agaaataagc cagccacggc agtcgcttgg      5520
tttcccaggt ggaatgggct aacacaggag atgatgggaa cctgtcccgc agtccctgca      5580
tgaccattgg ccctgctggc ctggcgatgt gggcatcctg gggttcttag ggtcccagaa      5640
caagccccag gcaagctgga acttgggtgg ggaggggaca tgaggaggat aaacagctga      5700
ctgtggcttc aaggacatca gggccacccc aagtcctcag tgtcctactc ctggcaagga      5760
gttgggtttg gatcaaaagt gtttaaaatt aatatgttgt cagtgattag aacaacactg      5820
tttacataaa aaccattttt ctaattctaa caagttagaa tgtgaggaag gaatgaacat      5880
gagtgtttag gaacctgccc tttggtgctg ggctggcgtc ccgcactggg gtgtcctcgc      5940
tgtctggggg ctgctctgct gcccggccca ggtccccttg tggtgttgcc agacgggcct      6000
catggtctgc tgtgcagaga gaggcaggaa ggatccctga agagtcttgg agaaaaggtt      6060
ctgtgccctc aggtggggct taccccctcg tatttataat cttaatttat atagtgacca      6120
ccgtggaaac aaacgcctct tgtattgtca tgtacatagt ccatacctga gtgctgtaca      6180
taagttgttc tgtgtataaa taaaacaagc ctgttttga tcttcc                      6226
```

<210> 287
<211> 13747
<212> DNA
<213> Homo sapiens

<400> 287
```
ggatccgcca aggactttga ttattgcgtg aaagtgctga ctgccaggac aggaagctag        60
ctaagatgca agttcccagc ctagagcagt ggcctctggg gggtctaggg cggacccaag       120
ggcaaggcca gggtggcagc agcttgggga ctctggctgg ctccctcccc tgacactggc       180
tgaagcccag gtggtctcta acccctccca tctctccctc tcatcttccc cagggcatct       240
cctcccaacc aggcaactcc ccgagtggca cagtggtgtg aagccatgga tatcgggccc       300
```

217

```
ccccaaccccc atgcccccag cctcctagcc ataaccctcc ctgctgacct cacagatcaa    360
cgtattaaca agactaacca tgatggatgg actgctccag tcccccaccc tgcacaaaat    420
ttggggggccc cccagactgg cccggacacg ggcgatgtaa tagcccttgt ggcctcagcc    480
ttgtccccca cccactgcca agtacaatga cctcttcctc tgaaacatca gtgttaccct    540
catccctgtc cccagcatgt gactggtcac tcctgggggag acactccccg ccctgccac    600
aagagcccca ggtctgcagt gtgcccctca gttgagtggg cagggccggg ggtggtccag    660
ccctcgcccg gcccccaccc cagctgccct tgctattgtc tgtgcttttg aagagtgtta    720
aattatggaa gcccctcagg ttcctccctg tcccgcagga cctcttattt atactaaagt    780
tccctgtttt ctcagcgggt ctgtcccctt cggaggagat gatgtagagg acctgtgtgt    840
gtactctgtg gttctaggca gtccgctttc cccagaggag gagtgcaggc ctgctcccag    900
cccagcgcct cccaccccctt ttcatagcag gaaaagccgg agcccaggga gggaacggac    960
ctgcgagtca cacaactggt gacccacacc agcggctgga gcaggaccct cttggggaga   1020
agagcatcct gcccgcagcc agggcccctc atcaaagtcc tcggtgtttt ttaaattatc   1080
agaactgccc aggaccacgt ttcccaggcc ctgcccagct gggactcctc ggtccttgcc   1140
tcctagtttc tcaggcctgg ccctctcaag gcccaggcac cccaggccgg ttggaggccc   1200
cgacttccac tctggagaac cgtccaccct ggaaagaaga gctcagattc ctcttggctc   1260
tcggagccgc agggagtgtg tcttcccgcg ccaccctcca cccccgaaa tgtttctgtt   1320
tctaatccca gcctgggcag gaatgtggct ccccggccag gggccaagga gctattttgg   1380
ggtctcgttt gcccagggag ggcttggctc caccactttc ctcccccagc ctttgggcag   1440
caggtcaccc ctgttcaggc tctgagggtg cccccctcctg gtcctgtcct caccacccct   1500
tccccacctc ctgggaaaaa aaaaaaaaa aaaaaaaag ctggtttaaa gcagagagcc   1560
tgagggctaa atttaactgt ccgagtcgga atccatctct gagtcaccca agaagctgcc   1620
ctggcctccc gtccccttcc caggcctcaa ccccttttct ccacccagcc ccaaccccca   1680
gccctcaccc cctagccccc agttctggag cttgtcggga gcaaggggggt ggttgctact   1740
gggtcactca gcctcaattg gccctgttca gcaatgggca ggttcttctt gaaattcatc   1800
acacctgtgg cttcctctgt gctctacctt tttattgggg tgacagtgtg acagctgaga   1860
ttctccatgc attccccccta ctctagcact gaagggttct gaagggccct ggaaggaggg   1920
agcttggggg gctggcttgt gagggggttaa ggctgggagg cgggagggggg gctggaccaa   1980
ggggtgggga gaaggggagg aggcctcggc cggccgcaga gagaagtggc cagagaggcc   2040
caggggacag ccagggacag gcagacatgc agccagggct ccagggcctg gacaggggct   2100
gccaggccct gtgacaggag gaccccgagc ccccggcccg gggaggggcc atggtgctgc   2160
ctgtccaaca tgtcagccga ggtgcggctg aggcggctcc agcagctggt gttggacccg   2220
ggcttcctgg ggctggagcc cctgctcgac cttctcctgg gcgtccacca ggagctgggc   2280
gcctccgaac tggcccagga caagtacgtg gccgacttct gcagtggggg tgagtgccta   2340
ccctcggggc tcctgcagat ggggtggggg tggggcagca gacagctctg ggcacagagg   2400
cctggctgtt gggggggggc agcatggcag gatgggcatg gggagatcct cccatcctgg   2460
ggctcagagt gtggacctgg gccctggggc aacatttctc tgtcctatgc caccactctg   2520
gaggggcaga gtaaggtcag cagaggctag ggtggctgtg actcagagcc atggcttagg   2580
agtcacagca ggctaggctg ccaacagcct cccatggcct ctctgcaccc cgcctcaggg   2640
tcagggtcag ggtcatgctg ggagctccct ctcctaggac cctccccca aaagtgggct   2700
ctatggccct ctcccctggt ttcctgtggc ctggggcaag ccaggagggc cagcatgggg   2760
cagctgccag gggcgcagcc gacaggcagg tgttcggcgc cagcctctcc agctgcccca   2820
acaggtgccc aggcgctggg agggcggtga ctcacgcggg ccctgtggga gaaccagctt   2880
tgcagacagg cgccaccagt gcccctcct ctgcgatcca ggagggacaa ctttgggttc   2940
ttctgggtgt gtctccttct ttagtaggtt ctgcacccac ccccacccc agccccaaag   3000
tctcggttcc tatgagccgt gtgggtcaga caccattccc gccaccccgg gtccctgcgt   3060
cctttagttc tcctggccca gggcctccaa ccttccagct gtcccacaaa accccttctt   3120
gcaagggctt tccagggcct ggggccaggg ctggaaggag gatgcttccg cttctgccag   3180
```

218

```
ctgccttgtc tgcccaacct cctccccaag cccaggactc gggctcactg gtcactggtt    3240
tctttcattc ccagcaccct gctcctctgg ccctcatatg tctggccctc agtgactggt    3300
gtttggtttt tgggctgtgt gtaacaaact gtgtgtgaca cttgtttcct gtttctccgc    3360
cttccctgc ttcctcttgt gtccatctct ttctgaccca ggcctggttc ctttccctcc     3420
tcctcccatt tcacagatgg gaaggtggcg gccaagaagg gccaggccat tcagcctctg    3480
gaaaaacctt ctcccaacct cccacagccc ctaatgactc tcctggcctc cctttagtag    3540
aggatgaagt tgggttggca gggtaaactg agaccgggtg gggtaggggt ctggcgctcc    3600
cgggaggagc actccttttg tggcccgagc tgcatctcgc ggcccctccc ctgccaggcc    3660
tggggcgggg gaggggccca gggttcctgc tgccttaaaa gggctcaatg tcttggctct    3720
ctcctccctc ccccgtcctc agccctggct ggttcgtccc tgctggccca ctctcccgga    3780
acccccggga acccctctct ttcctccaga acccactgtc tcctctcctt ccctcccctc    3840
ccatacccaa ccctctctcc atcctgtcct ccacttcttc caccccggg agagccaggc     3900
ctccctgtg ccccacagtg ccctgaggcc acaagcctcc accccagctg gtccccaccc     3960
aggctgccca gtttaacatt cctagtcata ggaccttgac ttctgagagg cctgattgtc    4020
atctgtaaat aaggggtagg actaaagcac tcctcctgga ggactgagag atgggctgga    4080
ccggagcact tgagtctggg atatgtgacc atgctacctt tgtctccctg tcctgttcct    4140
tcccccagcc ccaaatccag ggttttccaa agtgtggttc aagaaccacc tgcatctgaa    4200
tctagaggta ctggatacaa ccccacgtct gggccgttac ccaggacatt ctacatgaga    4260
acgtgggggt ggggccctgg ctgcacctga actgtcacct ggagtcaggg tggaaggtgg    4320
aagaactggg tcttatttcc ttctcccctt gttctttagg gtctgtcctt ctgcagactc    4380
cgttacccca ccctaaccat cctgcacacc cttggagccc tctgggccaa tgccctgtcc    4440
cgcaaagggc ttctcaggca tctcacctct atgggagggc atttttggcc cccagaacct    4500
tacacggtgt ttatgtgggg aagcccctgg gaagcagaca gtcctagggt gaagctgaga    4560
ggcagagaga aggggagaca gacagagggt ggggctttcc cccttgtctc cagtgccctt    4620
tctggtgacc ctcggttctt ttcccccacc accccccag cggagcccat cgtggtgagg     4680
cttaaggagg tccgactgca gagggacgac ttcgagattc tgaaggtgat cggacgcggg    4740
gcgttcagcg aggtaagccg aaccgggcgg gagcctgact tgactcgtgg tgggcggggc    4800
atagggggtg gggcgggccc ttagaaattg atgaatgacc gagccttaga acctagggct    4860
gggctggagg cggggcttgg gaccaatggg cgtggtgtgg caggtggggc ggggccacgg    4920
ctgggtgcag aagcgggtgg agttgggtct gggcgagccc ttttgttttc cgccgtctc     4980
cactctgtct cactatctcg acctcaggta gcggtagtga agatgaagca gacgggccag     5040
gtgtatgcca tgaagatcat gaacaagtgg gacatgctga agaggggcga ggtgagggc     5100
tgggcggacg tggggggctt tgaggatccg cgccccgtct ccggctgcag ctcctccggg    5160
tgccctgcag gtgtcgtgct tccgtgagga gagggacgtg ttggtgaatg gggaccggcg    5220
gtggatcacg cagctgcact tcgccttcca ggatgagaac tacctggtga gctccgggcc    5280
gggggggacta ggaagaggga caagagcccg tgctgtcact ggacgaggag gtggggagag    5340
gaagctctag gattgggggt gctgcccgga aacgtctgtg ggaaagtctg tgtgcggtaa    5400
gagggtgtgt caggtggatg aggggccttc cctatctgag acgggatgg tgtccttcac     5460
tgcccgtttc tggggtgatc tgggggactc ttataaagat gtctctgttg cggggggtct    5520
cttacctgga atgggatagg tcttcaggaa ttctaacggg gccactgcct agggaaggag    5580
tgtctgggac ctattctctg ggtgttgggt ggcctctggg ttctctttcc cagaacatct    5640
caggggagt gaatctgccc agtgacatcc caggaaagtt tttttgtttg tgttttttt     5700
tgaggggcgg gggcgggggc cgcaggtggt ctctgatttg gcccggcaga tctctatggt    5760
tatctctggg ctggggctgc aggtctctgc ccaaggatgg ggtgtctctg ggaggggttg    5820
tcccagccat ccgtgatgga tcagggcctc aggggactac caaccaccca tgacgaaccc    5880
cttctcagta cctggtcatg gagtattacg tgggcggggga cctgctgaca ctgctgagca    5940
agtttgggga gcggattccg gccgagatgg cgcgcttcta cctggcggag attgtcatgg    6000
```

219

```
ccatagactc ggtgcaccgg cttggctacg tgcacaggtg ggtgcagcat ggccgagggg    6060
atagcaagct tgttccctgg ccgggttctt ggaaggtcag agcccagaga ggccagggcc    6120
tggagaggga ccttcttggt tggggcccac cggggggtgc ctgggagtag gggtcagaac    6180
tgtagaagcc ctacaggggc ggaacccgag gaagtggggt cccaggtggc actgcccgga    6240
ggggcggagc ctggtgggac cacagaaggg aggttcattt atcccaccct tctcttttcc    6300
tcccgtgcag ggacatcaaa cccgacaaca tcctgctgga ccgctgtggc cacatccgcc    6360
tggccgactt cggctcttgc ctcaagctgc gggcagatgg aacggtgagc cagtgccctg    6420
gccacagagc aactggggct gctgatgagg gatggaaggc acagagtgtg ggagcgggac    6480
tggatttgga ggggaaaaga ggtggtgtga cccaggctta agtgtgcatc tgtgtggcgg    6540
agtattagac caggcagagg gaggggctaa gcatttgggg agtggttgga aggagggccc    6600
agagctggtg ggcccagagg ggtgggccca agcctcgctc tgctcctttt ggtccaggtg    6660
cggtcgctgg tggctgtggg cacccccagac tacctgtccc ccgagatcct gcaggctgtg    6720
ggcggtgggc ctgggacagg cagctacggg cccgagtgtg actggtgggc gctgggtgta    6780
ttcgcctatg aaatgttcta tgggcagacg cccttctacg cggattccac ggcggagacc    6840
tatggcaaga tcgtccacta caaggtgagc acggccgcag ggagacctgg cctctcccgg    6900
taggcgctcc caggctatcg cctcctctcc ctctgagcag gagcacctct ctctgccgct    6960
ggtggacgaa ggggtccctg aggaggctcg agacttcatt cagcggttgc tgtgtccccc    7020
ggagacacgg ctgggccggg gtggagcagg cgacttccgg acacatccct tcttctttgg    7080
cctcgactgg gatggtctcc gggacagcgt gccccccttt acaccggatt tcgaaggtgc    7140
caccgacaca tgcaacttcg acttggtgga ggacgggctc actgccatgg tgagcggggg    7200
cggggtaggt acctgtggcc cctgctcggc tgcgggaacc tccccatgct ccctccataa    7260
agttggagta aggacagtgc ctaccttctg gggtcctgaa tcactcattc cccagagcac    7320
ctgctctgtg cccatctact actgaggacc cagcagtgac ctagacttac agtccagtgg    7380
gggaacacag agcagtcttc agacagtaag gccccagagt gatcagggct gagacaatgg    7440
agtgcagggg gtgggggact cctgactcag caaggaaggt cctggagggc tttctggagt    7500
ggggagctat ctgagctgag acttggaggg atgagaagca ggagaggact cctcctccct    7560
taggccgtct ctcttcaccg tgtaacaagc tgtcatggca tgcttgctcg gctctgggtg    7620
cccttttgct gaacaatact ggggatccag cacggaccag atgagctctg gtccctgccc    7680
tcatccagtt gcagtctaga gaattagaga attatggaga gtgtggcagg tgccctgaag    7740
ggaagcaaca ggatacaaga aaaaatgatg ggcggcaggc aacgggtggg ctcacgcctg    7800
taaccccccag caatttggca ggccgaagtg ggtggattgc ttgagcccag gagttcgaga    7860
ccagcctggg caatgtggtg agacccccgt ctctacaaaa atgttttaaa aattggttgg    7920
gcgtggtggc gcatgcctgt atactcagct actagggtgg ccgacgtggg cttgagccca    7980
ggaggtcaag gctgcagtga gctgtgattg tgccactgca ctccagcctg gcaacggag    8040
agagactctg tctcaaaaat aagataaact gaaattaaaa aataggctgg gctggccggg    8100
cgtggtggct cacgcctgta atctcagcac tttgggaggc cgaggcgggt ggatcacgag    8160
gtcagaagat ggagaccagc ctggccagcg tggcgaaacc ccgtctctac ccaaaaatat    8220
aaaaaattag ccaggcgtgg tagagggcgc ctgtaatctc agctactcag gacgctgagg    8280
caggagaatc gcctgaacct gggaggcgga ggttgcagtg agctgagatt gcaccactgc    8340
actccagcct gggtaacaga gcgagactcc gtatcaaaga aaagaaaaa agaaaaaatg    8400
ctggaggggc cactttagat aacccctgag ttggggctgg tttgggggga acatgtaagc    8460
caagatccaa aagcagtgag gggcccgccc tgacgactgc tgctcacatc tgtgtgtctt    8520
gcgcaggaga cactgtcgga cattcgggaa ggtgcgccgc taggggtcca cctgcctttt    8580
gtgggctact cctactcctg catggccctc aggtaagcac tgccctggac ggcctccagg    8640
ggacacgagg ctgcttgagc ttcctgggtc ctgctccttg gcagccaatg gagttgcagg    8700
atcagtcttg gaacctcact gtttggggcc cacagactcc taagaggcca gagttggagg    8760
accttaaatt tctcagatct atgtacttca aatgttagat tgaattttaa aacctcagag    8820
tcacagactg ggcttcccag aatcttgtaa ccattaactt ttacgtctgt agtacacaga    8880
```

220

```
gccacaggac ttcagaactt ggcaaatatg aagtttagac ttttacaatc agttgtaaaa   8940
gaatgcaaat tctttgaatc agccatataa caataaggcc atttaaaagt attaatttag   9000
gcgggccgcg gtggctcacg cctgtaatcc tagcactttg ggaggccaag gcaggtggat   9060
catgaggtca ggagatcgag accatcctgg ctaacacggt gaaaccccgt ctctactaaa   9120
aatacaaaaa aattagccgg gcatggtggc gggcgcttgc ggtcccagct acttgggagg   9180
cgaggcagga gaatggcatg aacccgggag gcggagcttg cagtgagccg agatcatgcc   9240
actgcactcc agcctgggcg acagagcaag actccgtctc aaaaaaaaaa aaaaaaaagt   9300
ttttatttag gccgggtgtg gcggctcacg cctgtaatcc agtgctttgg gaggatgagg   9360
tgggtggatc actgaggtca ggagttcgag accagcctga ccacgtggag aaacctcatc   9420
tctactaaaa aacaaaatta gccaggcgtg gtggcatata cctgtaatcc cagctactca   9480
ggaggctgag gcaggagaat cagaacccag gaggggagg ttgtggtgag ctgagatcgt   9540
gccattgcat tccagcctgg gcaacaagag tgaaacttca tctccaaaaa aaaaaaaaaa   9600
aagtactaaa tttacaggct gggcatggtg gctcacgctt ggaatcccag cactttggga   9660
ggctgaagtg gacggattgc ttcagcccag gagttcaaga ccagcctgag caacataatg   9720
agaccctgtc tctaccaaaa attgaaaaaa tcgtgccagg catggtggtc tgtgcctgca   9780
gtcctagcta ctcaggagtc tgaagtagga gaatcacttg agcctggagt ttgaggcttc   9840
agtgagccat gatagattcc agcctaggca acaaagtgag acctggtctc aacaaaagta   9900
ttaattacac aaataatgca ttgcttatca caagtaaatt agaaaataca gataaggaaa   9960
aggaagttga tatctcgtga gctcaccaga tgggcagtgg tccctggctc acacgtgtac  10020
tgacacatgt ttaaatagtg gagaacaggt gttttttttgg tttgttttttt tccccttcct  10080
catgctactt tgtctaagag aacagttggt tttctagtca gcttttatta ctgggcaaca  10140
ttacacatac tataccttat cattaatgaa ctccagcttg attctgaacc gctgcggggc  10200
ctgaacggtg ggtcaggatt gaacccatcc tctattagaa cccaggcgca tgtccaggat  10260
agctaggtcc tgagccgtgt tcccacagga gggactgctg ggttggaggg gacagccact  10320
tcatacccca gggaggagct gtccccttcc cacagctgag tggggtgtgc tgacctcaag  10380
ttgccatctt ggggtcccat gcccagtctt aggaccacat ctgtggaggt ggccagagcc  10440
aagcagtctc cccatcaggt cggcctccct gtcctgaggc cctgagaaga ggggtctgca  10500
gaaggtttag aaagagcagc tcccaggggc ccaaggccag gagaggggca gggcttttcc  10560
taagcagagg aggggctatt ggcctacctg ggactctgtt ctcttcgctc tgctgctccc  10620
cttcctcaaa tcaggaggtc ttggaagcag ctgcccctac ccacaggcca gaagttctgg  10680
ttctccacca gagaatcagc attctgtctc cctccccact ccctcctcct ctccccaggg  10740
acagtgaggt cccaggcccc acccatgg aagtggaggc cgagcagctg cttgagccac  10800
acgtgcaagc gcccagcctg gagccctcgg tgtccccaca ggatgaaaca gtaagttggt  10860
ggaggggagg gggtccgtca gggacaattg ggagagaaaa ggtgagggct tcccgggtgg  10920
cgtgcactgt agagccctct agggacttcc tcgaacagaa gcagacagaa accacggaga  10980
gacgaggtta cttcagacat gggacggtct ctgtagttac agtggcgcat taagtaaggg  11040
tgtgtgtgtt gctggcgatc tgagaagtcg atctttgagc tgagcgctgg tgaaggagaa  11100
acaagccatg gaaggaaagg tgccaagtgg tcaggcgaga gcctccaggg caaaggcctt  11160
gggcaggtgg gaatcctgat ttgttcctga aaggtagttt gtctgagtca ctacctgaga  11220
aggctggaga ggccagcagg aaacacaacc cagcacggcc tgttgtcgtg tgggcactag  11280
ggagctggag ggattttgag caccagaggg acatagggtg tgttagtgtg tgagcaccag  11340
ccctctggtg ccctgtgtag atttagagga ccagactcag ggatgggtct gaggaggta  11400
gagaagggag ggggcttgga tcattgcagg agctatgggg attccagaaa tgttgagggg  11460
gcggaggagt aggggataaa caaggattcc tagcctggaa ccagtgtcca agtcctgagt  11520
cttccaggag ccacaggcag ccttaagcct ggtccccaca cacaggctga agtggcagtt  11580
ccagcggctg tccctgcggc agaggctgag gccgaggtga cgctgcggga gctccaggaa  11640
gccctggagg aggaggtgct cacccggcag agcctgagcc gggagatgga ggccatccgc  11700
```

221

```
acggacaacc agaacttcgc caggtcggga tcggggccgg ggccggggcc gggatgcggg    11760
ccggtggcaa cccttggcat cccctctcgt ccggcccgga cggactcacc gtccttacct    11820
ccccacagtc aactacgcga ggcagaggct cggaaccggg acctagaggc acacgtccgg    11880
cagttgcagg agcggatgga gttgctgcag gcagagggag ccacaggtga gtccctcatg    11940
tgtccccttc cccggaggac cgggaggagg tgggccgtct gctccgcggg gcgtgtatag    12000
acacctggag gagggaaggg acccacgctg gggcacgccg cgccaccgcc ctccttcgcc    12060
cctccacgcg ccctatgcct ctttcttctc cttccagctg tcacgggggt ccccagtccc    12120
cgggccacgg atccaccttc ccatgtaaga cccctctctt tcccctgcct cagacctgct    12180
gcccattctg cagatcccct ccctggctcc tggtctcccc gtccagatat agggctcacc    12240
ctacgtcttt gcgactttag agggcagaag ccctttattc agccccagat ctccctccgt    12300
tcaggcctca ccagattccc tccgggatct ccctagataa cctccccaac ctcgattccc    12360
ctcgctgtct ctcgccccac cgctgagggc tgggctgggc tccgatcggg tcacctgtcc    12420
cttctctctc cagctagatg gcccccggc cgtggctgtg ggccagtgcc cgctggtggg    12480
gccaggcccc atgcaccgcc gccacctgct gctccctgcc agggtacgtc cggctgccca    12540
cgccccctc cgccgtcgcg ccccgcgctc caccgcccc gtgccacccg cttagctgcg    12600
catttgcggg gctgggccca cggcaggagg gcggatcttc gggcagccaa tcaacacagg    12660
ccgctaggaa gcagccaatg acgagttcgg acgggattcg aggcgtgcga gtggactaac    12720
aacagctgta ggctgttggg gcggggcgg ggcgcaggga agagtgcggg cccacctatg    12780
ggcgtaggcg gggcgagtcc caggagccaa tcagaggccc atgccgggtg ttgacctcgc    12840
cctctccccg caggtcccta ggcctggcct atcggaggcg ctttccctgc tcctgttcgc    12900
cgttgttctg tctcgtgccg ccgccctggg ctgcattggg ttggtggccc acgccggcca    12960
actcaccgca gtctggcgcc gcccaggagc cgcccgcgct ccctgaaccc tagaactgtc    13020
ttcgactccg gggccccgtt ggaagactga gtgcccgggg cacggcacag aagccgcgcc    13080
caccgcctgc cagttcacaa ccgctccgag cgtgggtctc cgcccagctc cagtcctgtg    13140
taccgggccc gccccctagc ggccggggag ggaggggccg ggtccgcggc cggcgaacgg    13200
ggctcgaagg gtccttgtag ccgggaatgc tgctgctgct gctgctgctg ctgctgctgc    13260
tgggggatc acagaccatt tctttctttc ggccaggctg aggccctgac gtggatgggc    13320
aaactgcagg cctgggaagg cagcaagccg ggccgtccgt gttccatcct ccacgcaccc    13380
ccacctatcg ttggttcgca aagtgcaaag ctttcttgtg catgacgccc tgctctgggg    13440
agcgtctggc gcgatctctg cctgcttact cgggaaattt gcttttgcca aacccgcttt    13500
ttcggggatc ccgcgccccc ctcctcactt gcgctgctct cggagcccca gccggctccg    13560
cccgcttcgg cggtttggat atttattgac ctcgtcctcc gactcgctga caggctacag    13620
gaccccaac aacccaatc cacgttttgg atgcactgag accccgacat tcctcggtat    13680
ttattgtctg tccccaccta ggacccccac ccccgaccct cgcgaataaa aggccctcca    13740
tctgccc                                                            13747
```

<210> 288
<211> 1805
<212> DNA
<213> Homo sapiens

<400> 288
```
tattgtacaa ttacccacca ctggatttga ctcagagagg accccagag ggtgtctcca      60
tcttccctat ttattttcag cccttgaggg cttcattgta gatcaaagcc aaggccccca     120
ggaaggtgac atactcctgg aagttcacct cctggtcctt gttccggtcc aagtcttcca     180
tcagccttgc aatttcagca tcctgcagct tctaatgtgt tagaatgtga aatccatact     240
cagtggtgat gacaaccctg gattcttccc cttccccctc ccaggcaatc ctctctgcaa     300
gtggctctgt gctccctcat caccaaggac ccatgtcact ttggcattgc ttctcctcag     360
ctacttctca gttactggtc ctcatttgga gagatggaga ccggcagcaa ctctgaggag     420
```

222

```
gcatcagagc agtctgccga agaagtaagt gaggaagaaa tgagtgaaga tgaagaacga    480
gaaaatgaaa accacctctt ggttgttcca gagtcacggt tcgaccgaga ttccggggag    540
agtgaagaag cagaggaaga agtgggtgag ggaacgccgc agagcagcgc cctgacagag    600
ggcgactatg tgcccgactc ccctgccctg tcgcccatcg agctcaagca ggagctgccc    660
aagtacctgc cggccctgca gggctgccgg agcgtcgagg agttccagtg cctgaacagg    720
atcgaggagg gcacctatgg agtggtctac agagcaaaag acaagaaaac agatgaaatt    780
gtggctctaa agcggctgaa gatggagaag gagaaggagg gcttcccgat cacgtcgctg    840
agggagatca acaccatcct caaggcccag catcccaaca tcgtcaccgt tagagagatt    900
gtggtgggca gcaacatgga caagatctac atcgtgatga actatgtgga gcacgacctc    960
aagagcctga tggagaccat gaaacagccc ttcctgccag gggaggtgaa gacgctgatg   1020
atccagctgc tgcgtggggt gaaacacctg cacgacaact ggatcctgca ccgtgacctc   1080
aagacgtcca acctgctgct gagccacgcc ggcatcctca aggtgggtga cttcgggctg   1140
gcgcgggagt acggatcccc tctgaaggcc tacaccccgg tcgtggtgac cctgtggtac   1200
cgcgccccag agctgctgct tggtgccaag gaatactcca cggccgtgga catgtggtca   1260
gtgggttgca tcttcgggga gctgctgact cagaagcctc tgttccccgg gaagtcagaa   1320
atcgatcaga tcaacaaggt gttcaaggat ctggggaccc ctagtgagaa aatctggccc   1380
ggctacagcg agctcccagc agtcaagaag atgaccttca gcagacaccc ctacaacaac   1440
ctccgcaagc gcttcgggggc tctgctctca gaccagggct tcgacctcat gaacaagttc   1500
ctgacctact tccccgggag gaggatcagc gctgaggacg gcctcaagca tgagtatttc   1560
cgcgagaccc ccctccccat cgacccctcc atgttcccca cgtggcccgc caagagcgag   1620
cagcagcgtg tgaagcgggg caccagcccg aggcccctg agggaggcct gggctacagc   1680
cagctgggtg acgacgacct gaaggagacg ggcttccacc ttaccaccac gaaccagggg   1740
gcctctgccg cgggcccccgg cttcagcctc aagttctgaa ggtcagagtg accccgtca   1800
tgggg                                                                1805

<210>   289
<211>   2462
<212>   DNA
<213>   Homo sapiens

<400>   289
tcaacaggca ggggcagcac tgcagagatt tcatcatggt ctcccaggcc ctcaggctcc     60
tctgccttct gcttgggctt cagggctgcc tggctgcagg cggggtcgct aaggcctcag    120
gaggagaaac acgggacatg ccgtggaagc cggggcctca cagagtcttc gtaacccagg    180
aggaagccca cggcgtcctg caccggcgcc ggcgcgccaa cgcgttcctg gaggagctgc    240
ggccgggctc cctggagagg gagtgcaagg aggagcagtg ctccttcgag gaggcccggg    300
agatcttcaa ggacgcggag aggacgaagc tgttctggat ttcttacagt gatggggacc    360
agtgtgcctc aagtccatgc cagaatgggg gctcctgcaa ggaccagctc cagtcctata    420
tctgcttctg cctccctgcc ttcgagggcc ggaactgtga cgcgcacaag gatgaccagc    480
tgatctgtgt gaacgagaac ggcggctgtg agcagtactg cagtgaccac acgggcacca    540
agcgctcctg tcggtgccac gaggggtact ctctgctggc agacggggtg tcctgcacac    600
ccacagttga atatccatgt ggaaaaatac ctattctaga aaaagaaat gccagcaaac    660
cccaaggccg aattgtgggg ggcaaggtgt gccccaaagg ggagtgtcca tggcaggtcc    720
tgttgttggt gaatggagct cagttgtgtg gggggaccct gatcaacacc atctgggtgg    780
tctccgcggc ccactgtttc gacaaaatca agaactggag gaacctgatc gcggtgctgg    840
gcgagcacga cctcagcgag cacgacgggg atgagcagag ccggcgggtg gcgcaggtca    900
tcatccccag cacgtacgtc ccgggcacca ccaaccacga tcgcgctg ctccgcctgc    960
accagcccgt ggtcctcact gaccatgtgg tgcccctctg cctgcccgaa cggacgttct   1020
```

223

```
ctgagaggac gctggccttc gtgcgcttct cattggtcag cggctggggc cagctgctgg      1080
accgtggcgc cacggccctg gagctcatgg tgctcaacgt gccccggctg atgacccagg      1140
actgcctgca gcagtcacgg aaggtgggag actccccaaa tatcacggag tacatgttct      1200
gtgccggcta ctcggatggc agcaaggact cctgcaaggg ggacagtgga ggcccacatg      1260
ccacccacta ccggggcacg tggtacctga cgggcatcgt cagctggggc caggctgcg      1320
caaccgtggg ccactttggg gtgtacacca gggtctccca gtacatcgag tggctgcaaa      1380
agctcatgcg ctcagagcca cgcccaggag tcctcctgcg agccccattt ccctagccca      1440
gcagccctgg cctgtggaga gaaagccaag gctgcgtcga actgtcctgg caccaaatcc      1500
catatattct tctgcagtta atggggtaga ggagggcatg ggagggaggg agaggtgggg      1560
agggagacag agacagaaac agagagagac agagacagag agagactgag ggagagactc      1620
tgaggacatg gagagagact caaagagact ccaagattca aagagactaa tagagacaca      1680
gagatggaat agaaaagatg agaggcagag gcagacaggc gctggacaga ggggcagggg      1740
agtgccaagg ttgtcctgga ggcagacagc ccagctgagc ctccttacct cccttcagcc      1800
aagccccacc tgcacgtgat ctgctggccc tcaggctgct gctctgcctt cattgctgga      1860
gacagtagag gcatgaacac acatggatgc acacacacac acgccaatgc acacacacag      1920
agatatgcac acacacggat gcacacacag atggtcacac agagatacgc aaacacaccg      1980
atgcacacgc acatagagat atgcacacac agatgcacac acagatatac acatggatgc      2040
acgcacatgc caatgcacgc acacatcagt gcacacggat gcacagagat atgcacacac      2100
cgatgtgcgc acacacagat atgcacacac atggatgagc acacacacac caagtgcgca      2160
cacacaccga tgtacacaca cagatgcaca cacagatgca cacacaccga tgctgactcc      2220
atgtgtgctg tcctctgaag gcggttgttt agctctcact tttctggttc ttatccatta      2280
tcatcttcac ttcagacaat tcagaagcat caccatgcat ggtggcgaat gcccccaaac      2340
tctcccccaa atgtatttct ccccttcgctg ggtgccgggc tgcacagact attccccacc      2400
tgcttcccag cttcacaata aacggctgcg tctcctccgc acacctgtgg tgcctgccac      2460
cc                                                                      2462
```

<210> 290
<211> 1739
<212> DNA
<213> Homo sapiens

<400> 290
```
ggggatcact gttggaaggc agctgcttga ggtccaaggc agtcagtgtc ccctctcttt        60
tgcctcggga cagctggtat ttatcagact cctaagaagt tttccttgct ccctagtaga       120
agagagagat tatgcagcgg gcttttgatt gatccaatgg gaattacatt gatctggtgt       180
ctggccttgg ttcttatcaa gtggatcacc tctaagaggc gtggagctat ttcctatgac       240
agttctgatc agactgcatt atacattcgt atgctaggag atgtacgtgt aaggagccga       300
gcaggatttg aatcagaaag aagaggttct cacccatata ttgattttcg tattttccac       360
tctcaatctg aaattgaagt gtctgtctct gcaaggaata tcagaaggct actaagtttc       420
cagcgatatc ttagatcttc acgctttttt cgtggtactg cggtttcaaa ttccctaaac       480
attttagatg atgattataa tggacaagcc aagtgtatgc tggaaaaagt tggaaattgg       540
aattttgata tctttctatt tgatagacta acaaatggaa atagtctagt aagcttaacc       600
tttcatttat ttagtcttca tggattaatt gagtacttcc atttagatat gatgaaactt       660
cgtagatttt tagttatgat tcaagaagat taccacagtc aaaatcctta ccataacgca       720
gtccacgctg cggatgttac tcaggccatg cactgttact aaaggaacc taagcttgcc       780
aattctgtaa ctccttggga tatcttgctg agcttaattg cagctgccac tcatgatctg       840
gatcatccag gtgttaatca accttttctt attaaaacta accattactt ggcaacttta       900
tacaagaata cctcagtact ggaaaatcac cactggagat ctgcagtggg cttattgaga       960
gaatcaggct tattctcaca tctgccatta gaaagcaggc aacaaatgga gacacagata      1020
```

224

```
ggtgctctga tactagccac agacatcagt cgccagaatg agtatctgtc tttgtttagg    1080
tcccatttgg atagaggtga tttatgccta gaagacacca gacacagaca tttggtttta    1140
cagatggctt tgaaatgtgc tgatatttgt aacccatgtc ggacgtggga attaagcaag    1200
cagtggagtg aaaaagtaac ggaggaattc ttccatcaag gagatataga aaaaaaatat    1260
catttgggtg tgagtccact ttgcgatcgt cacactgaat ctattgccaa catccagatt    1320
ggttttatga cttacctagt ggagccttta tttacagaat gggccaggtt ttccaataca    1380
aggctatccc agacaatgct tggacacgtg gggctgaata aagccagctg gaagggactg    1440
cagagagaac agtcgagcag tgaggacact gatgctgcat ttgagttgaa ctcacagtta    1500
ttacctcagg aaaatcggtt atcataaccc ccagaaccag tgggacaaac tgcctcctgg    1560
aggtttttag aaatgtgaaa tggggtcttg aggtgagaga acttaactct tgactgccaa    1620
ggtttccaag tgagtgatgc cagccagcat tatttatttc caagatttcc tctgttggat    1680
catttgaacc cacttgttaa ttgcaagacc cgaacataca gcaatatgaa tttggctttt    1739
```

<210> 291
<211> 3291
<212> DNA
<213> Homo sapiens

<400> 291
```
accgggcaag cgggaaccag gtggccaccc ggtgtcggtt tcattttcct ttggaatttc      60
tgctttacag acagaacaat ggcagcccga gtacttataa ttggcagtgg aggaagggaa     120
catacgctgg cctggaaact tgcacagtct catcatgtca aacaagtgtt ggttgcccca     180
ggaaacgcag gcactgcctg ctctgaaaag atttcaaata ccgccatctc aatcagtgac     240
cacactgccc ttgctcaatt ctgcaaagag aagaaaattg aatttgtagt tgttggacca     300
gaagcacctc tggctgctgg gattgttggg aacctgaggt ctgcaggagt gcaatgcttt     360
ggcccaacag cagaagcggc tcagttagag tccagcaaaa ggtttgccaa agagtttatg     420
gacagacatg gaatcccaac cgcacaatgg aaggctttca ccaaacctga gaagcctgc      480
agcttcattt tgagtgcaga cttccctgct ttggttgtga aggccagtgg tcttgcagct     540
ggaaaagggg tgattgttgc aaagagcaaa gaagaggcct gcaaagctgt acaagagatc     600
atgcaggaga aagcctttgg ggcagctgga gaaacaattg tcattgaaga acttcttgac     660
ggagaagagg tgtcgtgtct gtgtttcact gatggcaaga ctgtggcccc catgccccca     720
gcacaggacc ataagcgatt actggaggga gatggtggcc ctaacacagg gggaatggga     780
gcctattgtc cagcccctca ggtttctaat gatctattac taaaaattaa agatactgtt     840
cttcagagga cagtggatgg catgcagcaa gagggtactc catatacagg tattctctat     900
gctggaataa tgctgaccaa gaatggccca aaagttctag agtttaattg ccgttttggt     960
gatccagagt gccaagtaat cctcccactt cttaaaagtg atctttatga agtgattcag    1020
tccaccttag atggactgct ctgcacatct ctgcctgttt ggctagaaaa ccacaccgcc    1080
ctaactgttg tcatggcaag taaaggttat cctggagact acaccaaggg tgtagagata    1140
acagggtttc ctgaggctca agctctagga ctggaggtgt tccatgcagg cactgccctc    1200
aaaaatggca aagtagtaac tcatgggggt agagttcttg cagtcacagc catccgggaa    1260
aatctcatat cagcccttga ggaagccaag aaaggactag ctgctataaa gtttgaggga    1320
gcaatttata ggaaagacgt cggctttcgt gccatagctt cctccagca gcccaggagt     1380
ttgacttaca aggaatctgg agtagatatc gcagctggaa atatgctggt caagaaaatt    1440
cagcctttag caaaagccac ttccagatca ggctgtaaag ttgatcttgg aggttttgct    1500
ggtctttttg atttaaaagc agctggtttc aaagatcccc ttctggcctc tggaacagat    1560
ggcgttggaa ctaaactaaa gattgcccag ctatgcaata acatgatac cattggtcaa     1620
gatttggtag caatgtgtgt taatgatatt ctggcacaag gagcagagcc cctcttcttc    1680
cttgattact tttcctgtgg aaaacttgac ctcagtgtaa ctgaagctgt tgttgctgga    1740
```

                                   225

```
attgctaaag cttgtggaaa agctggatgt gctctccttg gaggtgaaac agcagaaatg   1800
cctgacatgt atccccctgg agagtatgac ctagctgggt ttgccgttgg tgccatggag   1860
cgagatcaga aactccctca cctggaaaga atcactgagg gtgatgttgt tgttggaata   1920
gcttcatctg gtcttcatag caatggattt agccttgtga ggaaaatcgt tgcaaaatct   1980
tccctccagt actcctctcc agcacctgat ggttgtggtg accagacttt aggggactta   2040
cttctcacgc ctaccagaat ctacagccat tcactgttac ctgtcctacg ttcaggacat   2100
gtcaaagcct ttgcccatat tactggtgga ggattactag agaacatccc cagagtcctc   2160
cctgagaaac ttggggtaga tttagatgcc cagacctgga ggatccccag ggttttctca   2220
tggttgcagc aggaaggaca cctctctgag gaagagatgg ccagaacatt taactgtggg   2280
gttggcgctg tccttgtggt atcaaaggag cagacagagc agattctgag ggatatccag   2340
cagcacaagg aagaagcctg ggtgattggc agtgtggttg cacgagctga aggttcccca   2400
cgtgtgaaag tcaagaatct gattgaaagc atgcaaataa atgggtcagt gttgaagaat   2460
ggctccctga caaatcattt ctcttttgaa aaaaaaaagg ccagagtggc tgtcttaata   2520
tctggaacag gatcgaacct gcaagcactt atagacagta ctcgggaacc aaatagctct   2580
gcacaaattg atattgttat ctccaacaaa gccgcagtag ctgggttaga taaagcggaa   2640
agagctggta ttcccactag agtaattaat cataaactgt ataaaaatcg tgtagaattt   2700
gacagtgcaa ttgacctagt ccttgaagag ttctccatag acatagtctg tcttgcagga   2760
ttcatgagaa ttctttctgg ccccctttgtc caaaagtgga atggaaaaat gctcaatatc   2820
cacccatcct tgctcccttc ttttaagggt tcaaatgccc atgagcaagc cctggaaacc   2880
ggagtcacag ttactgggtg cactgtacac tttgtagctg aagatgtgga tgctggacag   2940
attattttgc aagaagctgt tcccgtgaag agggtgtgata ctgtcgcaac tctttctgaa   3000
agagtaaaat tagcagaaca taaaatattt cctgcagccc ttcagctggt ggccagtgga   3060
actgtacagc ttggagaaaa tggcaagatc tgttgggtta aagaggaatg aagccttta    3120
attcagaaat ggggccagtt tagaaagaat tatttgctgt ttgcatggtg gttttttatc   3180
atggacttgg cccaaaagaa aaactgctaa aagacaaaaa agacctcacc cttacttcat   3240
ctattttttt aataaataga gactcactaa aaaaaaaaaa aaaaaaaaa a             3291
```

<210>   292
<211>   816
<212>   DNA
<213>   Homo sapiens

<400>   292
```
ggggctgcgc ggcggtggcg gcggcgctcc tcctggtgct gctggggggcc cgggcccagg    60
gcggcactcg tagccccagg tgtgactgtg ccggtgactt ccacaagaag attggtctgt   120
tttgttgcag aggctgccca gcggggcact acctgaaggc cccttgcacg gagccctgcg   180
gcaactccac ctgccttgtg tgtccccaag acaccttctt ggcctgggag aaccaccata   240
attctgaatg tgcccgctgc caggcctgtg atgagcaggc ctcccaggtg gcgctggaga   300
actgttcagc agtggccgac acccgctgtg gctgtaagcc aggctggttt gtggagtgcc   360
aggtcagcca atgtgtcagc agttcaccct tctactgcca accatgccta gactgcgggg   420
ccctgcaccg ccacacacgg ctactctgtt cccgcagaga tactgactgt gggacctgcc   480
tgcctggctt ctatgaacat ggcgatggct gcgtgtcctg ccccacgtaa ttcctagctg   540
tcgtgggatg gagggaaggg cggctgggag cagagcaggg gacctggggt ggggcaggtg   600
ctgctggttc aggaatagga agaggggata gggaggaggg agccttggcc ctgtgatggg   660
tgggccccac ttcaggcaaa cttagatggc aaaagagcaa tctggatccg ccttagccag   720
atacataagg gtatttgcct tcactttcag ccagcattcc ccccagcgat cctagccaga   780
tattacagat ggtaaccctc gtgccgaatt cttgcc                            816
```

<210>   293
```

226

<211> 1475
<212> DNA
<213> Homo sapiens

<400> 293
```
aaagcaaatc attcaacgac cccgaccct ccgacggcag gagcccccg acctcccagg   60
cggacccgct ccctccccgc gcggcgttcc gggcccggcg agaggcgcga gcacagccga   120
ggccatggag gtgacggcgg accagccgcg ctgggtgagc caccaccacc ccgccgtgct   180
caacgggcag cacccggaca cgcaccaccc gggcctcagc cactcctaca tggacgcggc   240
gcagtacccg ctgccggagg aggtggatgt gctttttaac atcgacggtc aaggcaacca   300
cgtcccgccc tactacggaa actcggtcag ggccacggtg cagaggtacc ctccgaccca   360
ccacgggagc caggtgtgcc gcccgcctct gcttcatgga tccctaccct ggctggacgg   420
cggcaaagtc ctgggcagcc accacaccgc ctcccctctgg aatctcagcc ccttctccaa   480
gacgtccatc caccacggct ccccgggggcc cctctccgtc tacccccccgg cctcgtcctc   540
ctccttgtcg gggggccacg ccagcccgca cctcttcacc ttcccgccca ccccgccgaa   600
ggacgtctcc ccggacccat cgctgtccac cccaggctcc ggcggctcgg cccggcagga   660
cgagaaagag tgcctcaagt accaggtgcc cctgcccgac agcatgaagc tggagtcgtc   720
ccactcccgt ggcagcatga ccgccctggg tggagcctcc tcgtcgaccc accaccccat   780
caccacctac ccgcccctacg tgcccgagta cagctccgga ctcttccccc ccagcagcct   840
gctgggcggc tcccccaccg gcttcggatg caagtccagg cccaaggccc ggtccagcac   900
aggcagggag tgtgtgaact gtggggcaac ctcgacccca ctgtggcggc gagatggcac   960
gggacactac ctgtgcaacg cctgcgggct ctatcacaaa atgaacggac agaaccggcc 1020
cctcattaag cccaagcgaa ggctgtctgc agccaggaga gcagggacgt cctgtgcgaa 1080
ctgtcagacc accacaacca cactctggag gaggaatgcc aatggggacc ctgtctgcaa 1140
tgcctgtggg ctctactaca agcttcacaa tattaacaga cccctgacta tgaagaagga 1200
aggcatccag accagaaacc gaaaaatgtc tagcaaatcc aaaaagtgca aaaagtgca 1260
tgactcactg gaggacttcc ccaagaacag ctcgtttaac ccggccgccc tctccagaca 1320
catgtcctcc ctgagccaca tctcgccctt cagccactcc agccacatgc tgaccacgcc 1380
cacgccgatg cacccgccat ccagcctgtc ctttggacca caccaccct ccagcatggt 1440
caccgccatg ggttagagcc ctgctcgatg ctcac   1475
```

<210> 294
<211> 1283
<212> DNA
<213> Homo sapiens

<400> 294
```
ctctctgctc ctcctgttcg acagtcagcc gcatcttctt ttgcgtcgcc agccgagcca   60
catcgctcag acaccatggg gaaggtgaag gtcggagtca acggatttgg tcgtattggg   120
cgcctggtca ccagggctgc ttttaactct ggtaaagtgg atattgttgc catcaatgac   180
cccttcattg acctcaacta catggtttac atgttccaat atgattccac ccatggcaaa   240
ttccatggca ccgtcaaggc tgagaacggg aagcttgtca tcaatggaaa tcccatcacc   300
atcttccagg agcgagatcc ctccaaaatc aagtggggcg atgctggcgc tgagtacgtc   360
gtggagtcca ctggcgtctt caccaccatg gagaaggctg ggctcatttt gcagggggga   420
gccaaaaggg tcatcatctc tgccccctct gctgatgccc ccatgttcgt catgggtgtg   480
aaccatgaga gtatgacaaa cagcctcaag atcatcagca atgcctcctg caccaccaac   540
tgcttagcac ccctggccaa ggtcatccat gacaactttg gtatcgtgga aggactcatg   600
accacagtcc atgccatcac tgccacccag aagactgtgg atggcccctc cgggaaactg   660
tggcgtgatg ccgcgggggc tctccagaac atcatccctg cctctactgg cgctgccaag   720
```

                                                     227

```
gctgtgggca aggtcatccc tgagctgaac gggaagctca ctggcatggc cttccgtgtc      780
cccactgcca acgtgtcagt ggtggacctg acctgccgtc tagaaaaacc tgccaaatat      840
gatgacatca agaaggtggt gaagcaggcg tcggagggcc ccctcaaggg catcctgggc      900
tacactgagc accaggtggt ctcctctgac ttcaacagcg acacccactc ctccacccttt     960
gacgctgggg ctggcattgc cctcaacgac cactttgtca agctcatttc ctggtatgac     1020
aacgaatttg gctacagcaa cagggtggtg gacctcatgg cccacatggc ctccaaggag     1080
taagacccct ggaccaccag ccccagcaag agcacaagag gaagagagag accctcactg     1140
ctggggagtc cctgccacac tcagtccccc accacactga atctcccctc ctcacagttg     1200
ccatgtagac cccttgaaga ggggaggggc ctaggagcc gcaccttgtc atgtaccatc       1260
aataaagtac cctgtgctca acc                                             1283

<210>   295
<211>   168
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   295
cgcccgcacg agcccgacct ttccgccgcg ctcaaggaca cccgcgcgca gtacgagaag        60
ctggccgcca tgaacatgca aaacgctgaa ggattttttg aagaacccgg attcaccgtg       120
ctgaccgaga gcgccgccaa gaacccgang ccgtgcgcgc cgccaacg                    168

<210>   296
<211>   304
<212>   DNA
<213>   Homo sapiens


<400>   296
ctttataata tgtgcttctt accagtcaaa aagtattata aactattaga aaagaaaatc        60
taaaggtaga aattttaaaa ttcatttaac aagtaaattt tactttttttt ttttttttttt    120
ttttttttact gttcttcctc agacattcaa acgtgttttg atcaaagaag aggagtatga     180
ttctattata gtatataact cggtcttcat gcagagactg aaaacaaata ttttgcagta      240
tgcttccacc agggtaggtc aaaagtatcc tttgattgga aaatctaat gtaatgggtc       300
cacc                                                                   304

<210>   297
<211>   701
<212>   DNA
<213>   Homo sapiens


<400>   297
tgctattggc taacattaca gtttcgcttt aaccaatggg attgcggttt tgaaaaacac        60
ttattttgat tggacaaagt taatatacgt ttccaggact caccactggt taaacgcaca      120
acttcattct ctaccccact tgcgttaaga agcagtgaat aagcggtagg ttgacagagc      180
taccgtcttc ctgttttttt cctccaattt tccggcagtt actccagtc atgcccgagc       240
cctcaaagtc cgctcctgcc ccgaagaaag gctccaagaa ggcagtgaca aaggcccaga      300
agaaggacgg caagaagcgc aagcgcagcc gcaaggagag ctactccgtg tacgtgtaca     360
aggtgctgaa gcaggtccac cccgacaccg gtatctcgtc caaggccatg ggcatcatga      420
```

```
actccttcgt caatgacatc ttcgagcgca tcgccggcga ggcttcccgc ctggcgcatt    480
acaacaagcg ctcgaccatc acctccaggg agatccagac ggccgtgcgc ctgctgctgc    540
caggggagct ggccaagcac gcggtgtcgg agggcaccaa ggccgtcacc aagtacacca    600
gttccaagtg agcccgccca ccgcggaacg ttcggtcagt ctcggcccac accccaaagg    660
ctcttttcag agccactcag tcttcccaaa gagaactggc a                        701
```

<210> 298
<211> 1953
<212> DNA
<213> Homo sapiens

<400> 298
```
agccggaagt catccttgct gaggctgggg caaccaccgc aggtcgagac agcaggcggc     60
tcaagtggac agccgggatg gcagagcgtg cgccgctgga ggagctggtg aaacttcagg    120
gagagcgcgt gcgaggcctc aagcagcaga aggccagcgc cgagctgatc gaggaggagg    180
tggcgaaact cctgaaactg aaggcacagc tgggtcctga tgaaagcaaa cagaaatttg    240
tgctcaaaac ccccaagggc acaagagact atagtccccg gcagatggca gttcgcgaga    300
aggtgtttga cgtaatcatc cgttgcttca agcgccacgg tgcagaagtc attgatacac    360
ctgtatttga actaaaggaa acactgatgg gaaagtatgg ggaagactcc aagcttatct    420
atgacctgaa ggatcagggc ggggagctcc tgtcccttcg ctatgacctc actgttcctt    480
ttgctcggta tttggcaatg aataaactga ccaacattaa acgctaccac atagcaaagg    540
tatatcggcg ggataaccca gccatgaccg gaggccgata tccgaattct atcactgtgg    600
attttgacat cgctggccag tttgatccca tgaatcctga tgcagagtcc ctgaagatca    660
tgtgcgagat cctgagttca cttcagatag gcaacttcct ggtcaaggta aatgatcggc    720
gcatcctaga tggaatgttt gctgtctgtg gtgttcctga tagcaagttc cgtaccatct    780
gctcctcagt ggacaaacta gataaggtgt cctgggagga agtaaagaat gagatggtgg    840
gagagaaggg ccttgcacca gaagtggctg atcgcattgg ggactatgtc cagcaacatg    900
gtggggtttc cctggtggaa caactggtcc aggatcctaa actatcccaa aacaagcagg    960
ccttggaggg cttgggagac ctgaagttgc tctttgagta cctgacccta tttggcattg   1020
atgacaaaat ctcctttgac ctgagccttg ctcgagggct ggattactac actggggtga   1080
tctatgaggc agtgctgcta cagaccccag cccaggaggg ggaagagccc tggtgtgggc   1140
agtgtggctg ctggaggcgc tatgatgggc tagtgggcat gttcgacccc caaaggcgca   1200
aggtcgccat gtgtgggggct cagcattggg gtggacggat tttctccatc gtggaacaga   1260
gactagaggc tttggaggag aagatacgga ccacggagac acaggtgctt gtggcatctg   1320
cacagaaaaa gctggctaga ggaaagacta aagcttgtct cagactgtgg gatgctggga   1380
tcaaggctga gctgctgtac aagaagaacc caaagctact gaaccagtta cagtactgtg   1440
aggaggcagg catcccactg gtggctatca tcggcgagca ggaactcaag gatggggtca   1500
tcaagctccg ttcagtgacg agcagggaag aggtggatgt ccgaagagaa gagcttgtgg   1560
aggaaatcaa aaggagaaca ggccagcccc tctgcatctg ctgaactgaa caaactatca   1620
gaggaaagga agtgggactg gcactatttg aggttaagac aaactgcata tgtacttcaa   1680
ttgctttgca cttttccgtt tcagcggaag acctgaagag tggtcagaac agagcctttg   1740
atttttatta tggttatttt attgattatt actggcaaaa acggccaggt acaacacctt   1800
tttcatacaa ggcccaggag gcttagtcca gtctgtgctc ctgggctaca aggacccagc   1860
ctgagatggt cccatctgca gggcccgcac cagttggagc agatacctcc ccaccaccaa   1920
ttgccaaagg tccaataaaa tgcctcaacc acg                                1953
```

<210> 299
<211> 649
```

229
```

<212> DNA

<213> Homo sapiens


<400> 299

```
tccagtacag aacctgctaa ggccatcaaa cctattgatc ggaagtcagt ccatcagatt      60
tgctctgggc cagtggtact gagtctaagc actgcagtga aggagttagt agaaaacagt     120
ctggatgctg gtgccactaa tattgatcta aagcttaagg actatggagt ggatctcatt     180
gaagtttcag acaatggatg tggggtagaa gaagaaaact ttgaaggctt aactctttca     240
gctctgaaac atcacacatg taagattcaa gagtttgccg acctaactga agttgaaact     300
ttcggttttc aggggggaagc tctgagctca ctgtgtgcac tgagcgatgt caccatttct     360
acctgccacg cgtcggtgaa ggttgggact cgactggtgt ttgatcacga tgggaaaatc     420
atccaggaaa cccctaccc cccaccccag aggaccacag tcagcgtgaa gcagttattt     480
tctacgctac ctgtgcgcca taaggaattt caaaggaata ttaagaagac gtgcctgctt     540
cccttcgcc ttctgccgtg attgtcagtt tcctgaggcc tccccagcca tgcttcctgt     600
acagcctgca gaactgtgag ccaattaaac ctctttctt caataaatt                 649
```

<210>   300

<211>   4003

<212>   DNA

<213>   Homo sapiens

<400>   300

```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat      60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc     120
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg     180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct     240
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc     300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat     360
ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa     420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca     480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat     540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat     600
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg     660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa     720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga     780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca     840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga     900
actagtggag tggaagcgga gacagcagag cgcctgtatt ggggggccgc ccaatgcttg     960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca    1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac    1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag    1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt    1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa    1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa    1320
aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc    1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc    1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt    1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgcccgt    1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa    1620
```

230

```
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg    1680
ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcaccaaaa gaggtctcaa    1740
tgtggaccag ctgaacatgt tgggagagaa gcttcttggt cctaacgcca gccccgatgg    1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttcccttctg    1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga    1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca    1980
gccggggacc ttcctgctgc ggttcagtga gagctcccgg gaaggggcca tcacattcac    2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac    2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc    2160
tgctgagaat attcctgaga atcccctgaa gtatctgtat ccaaatattg acaaagacca    2220
tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg    2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc    2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc    2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt    2460
ttttcatctt ctctggcgac agttttcctt ctcatctgtg attccctcct gctactctgt    2520
tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct    2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat    2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa    2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag    2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg    2820
gataaatcag tggttatttta gggaactgct tgacgtagga acggtaaatt tctgtgggag    2880
aattcttaca tgttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt    2940
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat    3000
catggatctg gtagggggaa aatgtgtatt ttattacatc tttcacattg gctatttaaa    3060
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt    3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg    3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt    3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat    3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt ccttttttgtt    3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa    3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt    3480
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt    3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca ctttttgag tggatgatgt    3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga    3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat    3720
cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt    3780
ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc    3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc    3900
tctcagtttt tatatagatg gcgagaacct aagttcagt tgattttaca attgaaatga    3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                      4003
```

<210> 301
<211> 4003
<212> DNA
<213> Homo sapiens

<400> 301
```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat      60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc     120
```

231

```
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg      180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct      240
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc      300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat      360
ccgtttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa      420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca      480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat      540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat      600
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg      660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact caaatgcaa       720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga      780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca      840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga      900
actagtggag tggaagcgga gacagcagag cgcctgtatt gggggggccgc ccaatgcttg      960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca     1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac     1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag     1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt     1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa     1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa     1320
aggatttagg aagttcaaca tttttgggcac gcacacaaaa gtgatgaaca tggaggagtc     1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc     1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt     1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgcccgt     1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa     1620
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg     1680
ggctcagctt tcagaagtgc tgagttggca gtttatcttct gtcaccaaaa gaggtctcaa     1740
tgtggaccag ctgaacatgt tgggagagaa gcttcttggt cctaacgcca gccccgatgg     1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttcccttctg     1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga     1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca     1980
gccggggacc ttcctgctgc ggttcagtga gagctcccgg gaagggggcca tcacattcac     2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac     2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc     2160
tgctgagaat attcctgaga atccctgaa gtatctgtat ccaaatattg acaaagacca     2220
tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg     2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc     2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc     2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt     2460
ttttcatctt ctctggcgac agttttcctt ctcatctgtg attccctcct gctactctgt     2520
tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct     2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat     2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa     2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag     2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg     2820
gataaatcag tggttatta gggaactgct tgacgtagga acggtaaatt tctgtgggag     2880
aattcttaca tgttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt     2940
```

232

```
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat    3000
catggatctg gtaggggaa  aatgtgtatt ttattacatc tttcacattg gctatttaaa    3060
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt    3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg    3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt    3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat    3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt ccttttttgtt   3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa    3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt    3480
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt    3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca cttttttgag tggatgatgt    3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga    3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat    3720
cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt    3780
ggtggagata aagatttctt gagtttttgtt ttaaaattaa agctaaagta tctgtattgc   3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc    3900
tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga    3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                      4003
```

<210> 302
<211> 522
<212> DNA
<213> Homo sapiens

<400> 302
```
ggagaaaaag acagaacaaa gatggaagtg gcctgggccc ctgggggtgg gtcctctctg     60
ttgtttttaa tctgcacctt atagactgat gtctctttgg ccggagccag atctgcccct    120
cagtgcattc gtgtgctcgc acgcgcagac atcccttctc ccccatacac acatatacac    180
tcacagcctc tctggcctct tcccttgggg aggggccacc tgtagtattt gccttgattt    240
ggtggggtac agtggatgtg aatactgtaa atagcttgtg ctcagactcc tctgcgtgga    300
gagggtgggt gcaggaggca gaccctcccc ccaaagcccc ctggggagat cttcctctct    360
ctatttaact gtaactgagg gggatcccag gtctggggat ggggacacc ttgggccaca     420
ggatactggt tgcttcaggg gtaccatgcc ccctgccctc gcctggaatc agtgttctgc    480
atctgattaa atgtctccag aaataaagaa taattctgcc aa                       522
```

<210> 303
<211> 269
<212> DNA
<213> Homo sapiens

<400> 303
```
gttaaaacat tttttaaag cagtaagttt atagaaaatg ttttcattta atggaaggct      60
ggggaatgtc cagcatcaac ccctatggca tgcattccag tggccttctc atctgggcct    120
ggaacctttg ttcagggctt aggggagaac aggccacatg gcaacagcca cacagtcatt    180
gccttcacac agagccacgt gtcccaaaca gcatagtcat gccttgtcag ctggatctaa    240
ttgtcatagt cgtgctcctc ctgtagact                                      269
```

<210> 304
<211> 271
<212> DNA
```

233

<213> Homo sapiens

<400> 304
```
gaacccttca ggccatgctc ttgggtgtct ggattctgct gcttctggca tctctggccc        60
ctctgtggct gtactgctgg agaatgttcc caaccaaagg gaaaagagac cagaaggaaa       120
tgttggaagt gagtggaatc tagccatgcc tctcctgatt attagtgcct ggtgcttctg       180
caccgggcgt ccctgcatct gactgctgga agaagaacca gacttaggaa aagaggctct       240
tcaacagccc agttattctg gcccatgacc t                                      271
```

<210> 305
<211> 278
<212> DNA
<213> Homo sapiens

<400> 305
```
gctgggaaga gcttcagcag tcccatgtgc acgtccatga cttgcagagc tttggccttg        60
acaacatcaa catgacccac tgtgtacatg aaggtggacg gagaggtact gaggactcat       120
cgattcgctc atctaccact cagcacgagc catccagaag gaaattgatc tagggaggac       180
accgtagtca ccctcggtct tcctctgtct ctctttctcc tggcctgtgg tgtccccagc       240
cttgccacct tcacctctgg tcagcccagc ccaggtga                              278
```

<210> 306
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 306
```
actcaatagt tgagtttggc tgttgttgca ggaaaatgat tataactaaa agctctctga        60
tagtgcagag acttaccaga agacacaagg aattgtactg aagagctatt acaatccaaa       120
tattgccgtt tcataaatgt aataagtaat actaattcac agagtattgt aaatggtgga       180
tgacaaaaga aaatctgctc tgtggaaaga aagaactgtc tctaccaggg tcaagagcat       240
gaacgcatca atagaaagaa ctcggggaaa catcccatca acaggactac acacttgtat       300
atacattctt ggagaacact gcaatgttga aaatccacgt ttgctattta taaacttgtc       360
cttagattaa tgtgtctgga cagattgtgg gagtaagtga ttcttctaag aattagatac       420
ttgtcactgc ctatacctgc agctggactg aatgggactt cgtatggtta atagttggtt       480
cnggataaat ccatgccaat taaaggtaaa gtgatgcc                              518
```

<210> 307
<211> 491
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 307

234

```
ccaggccctg cgaggggtat cgagaggagc tcactgtggg atggggttga cctctgccgc      60
ctgcctgggt atctgggcct ggccatggct gtgttcttca tgtgttgatt ttatttgacc     120
cctggagtgg tgggtctcat cttcccatc tcgcctgaga gcggctgagg gctgcctcac      180
tgcaaatcct ccccacagcg tcagtgaaag tcgtccttgt ctcagaatga ccaggggcca     240
gccagtgtct gaccaaggtc aaggggcagg tgcagaggtg gcagggatgg ctccgaagcc     300
agaaatgcct taaactgcaa cgtcccgtcc cttcnccacn cccatcccat ccccacccc      360
agccccagcc cagtcctcct aggagcagga cccgatgaag cgggcggcgg tggggctggg     420
tgccgtgtta ctaactctag tatgtttctg tgtcaatcgc tgtgaaataa gtctgaaaac     480
tttaaaaaaa a                                                          491
```

<210>   308
<211>   260
<212>   DNA
<213>   Homo sapiens

<400>   308
```
cttaccttgg gtgaactaac caaataatga ccatcgatgg ctcaaagagt ggcttgaata      60
tatcccatgg gttatctgta tggactgact aggttattga aaggactagc cacatactag     120
catcttagtg cctttatctg tctttatgtc ttggggttgg ggtaggtaga taccaaatga     180
aacactttca ggaccttcct acctcttgca gttgttcttt aatctccttt actagaggag     240
ataaatattt gcatataatg                                                  260
```

<210>   309
<211>   169
<212>   DNA
<213>   Homo sapiens

<220>

<221>   misc_feature
<223>   n=a,t,g or c

<400>   309
```
cccagctgcc ccagccctgg tctntggcgc atcttttccc tcttgtcccg aagatctgcg      60
cctctagtgc cttttaaggg gttcccatca tccctccctg atattgtatt gaaaatatta     120
tgcacactgt tcatgcttct actaatcaat aaacgcttta tttaaagcc                 169
```

<210>   310
<211>   313
<212>   DNA
<213>   Homo sapiens

<400>   310
```
ccagcagagg cggctcaggt tgcccagctc tgtggcctca ggactctctg cctcacccgc      60
ttcagcccag ggcccctgga gactgatccc ctctgagtcc tctgcccctt ccaaggacac     120
taatgagcct gggagggtgg caggaggag gggacagctt caccccttgga agtcctgggg     180
ttttcctctt ccttctttgt ggtttctgtt ttgtaattta agaagagcta ttcatcactg     240
taattattat tattttctac aataaatggg acctgtgtac aggaaaaagc gaaaaaaaaa     300
aaaaaaaaaa acc                                                        313
```

<210>   311
<211>   532
```

235

<212> DNA

<213> Homo sapiens


<400> 311
```
aacaacatga tatgtgctgg actggaccgg ggccaggacc cttgccagag tgactctgga   60
ggcccctgg tctgtgacga gaccctccaa ggcatcctct cgtggggtgt ttacccctgt   120
ggctctgcca gcatccagct gtctacaccc agatctgcaa atacatgtcc tggatcaata   180
aagtcatacg ctccaactga tccagatgct acgctccagc tgatccagat gttatgctcc   240
tgctgatcca gatgcccaga ggctccatcg tccatcctct tcctccccag tcggctgaac   300
tctccccttg tctgcactgt tcaaacctct gccgccctcc acacctctaa acatctcccc   360
tctcacctca ttcccccacc tatccccatt ctctgcctgt actgaagctg aaatgcagga   420
agtggtggca aaggtttatt ccagagaagc caggaagccg gtcatcaccc agcctctgag   480
agcagttact ggggtcacca acctgacttc ctctgccact ccctgctgtg tg   532
```

<210> 312

<211> 263

<212> DNA

<213> Homo sapiens


<400> 312
```
ctgatgggta taactgaccc ccacagggag gcaggaaaac agccagaagc caccttgaca   60
cttttgaaca tttccagttc tgtagagttt attgtcaatt gcttctcaag tctaaccagc   120
ctcagcagtg tgcatagacc atttccagga gggtctgtcc cagatgctct gcctcccgtt   180
ccaaaaccca ctcatcctca gcttgcacaa actggttgaa cggcaggaat gaaagataaa   240
gagagatggc ttttgtgata aaa   263
```

<210> 313

<211> 6252

<212> DNA

<213> Homo sapiens


<400> 313
```
gcggggggca atggcactgc agctctgggc cctgaccctg ctgggcctgc tgggcgcagg   60
tgccagcctg aggccccgca agctggactt cttccgcagc gagaaagagc tgaaccacct   120
ggctgtggat gaggcctcag gcgtggtgta cctggggggcg gtgaatgccc tctaccagct   180
ggatgcgaag ctgcagctgg agcagcaggt ggccacgggc ccggccctgg acaacaagaa   240
gtgcacgccg cccatcgagg ccagccagtg ccatgaggct gagatgactg acaatgtcaa   300
ccagctgctg ctgctcgacc ctcccaggaa gcgcctggtg gagtgcggca gcctcttcaa   360
gggcatctgc gctctgcgcg ccctgagcaa catctccctc cgcctgttct acgaggacgg   420
cagcggggag aagtctttcg tggccagcaa tgatgagggc gtggccacag tggggctggt   480
gagctccacg ggtcctggtg gtgaccgcgt gctgtttgtg ggcaaaggca tgggccaca   540
cgacaacggc atcatcgtga gcactcggct gttggaccgg actgacagca gggaggcctt   600
tgaagcctac acggaccacg ccacctacaa ggccggctac ctgtccacca cacacagca   660
gttcgtggcg gccttcgagg acggcccta cgtcttcttt gtcttcaacc agcaggacaa   720
gcacccggcc cggaaccgca cgctgctggc acgcatgtgc agagaagacc ccaactacta   780
ctcctacctg gagatggacc tgcagtgccg ggaccccgac atccacgccg ctgcctttgg   840
cacctgcctg gccgcctccg tggctgcgcc tggctctggc agggtgctat atgctgtctt   900
cagcagagac agccggagca gtgggggggcc cggtgcgggc ctctgcctgt tcccgctgga   960
caaggtgcac gccaagatgg aggccaaccg caacgcctgt tacacaggca cccgggaggc   1020
ccgtgacatc ttctacaagc ccttccacgg cgatatccag tgcggcggcc acgcgccggg   1080
```


236

```
ctccagcaag agcttcccat gtggctcgga gcacctgccc tacccgctgg gcagccgcga   1140
cgggctcaga ggcacagccg tgctgcagcg tggaggcctg aacctcacgg ccgtgacggt   1200
cgccgccgag aacaaccaca ctgttgcttt tctgggcacc tctgatggcc ggatcctcaa   1260
ggtgtacctc accccagatg gcacctcctc agagtacgac tctatccttg tggagataaa   1320
caagagagtc aagcgcgacc tggtactgtc tggagacctg ggcagcctgt acgccatgac   1380
ccaggacaag gtgttccggc tgccggtgca ggagtgcctg agctacccga cctgcaccca   1440
gtgccgcgac tcccaggacc cctactgcgg ctggtgcgtc gtcgagggac gatgcacccg   1500
gaaggccgag tgtccgcggg ccgaggaggc cagccactgg ctgtggagcc gaagcaagtc   1560
ctgcgtggcc gtcaccagcg cccagccaca gaacatgagc cggcgggccc agggggaggt   1620
gcagctgacc gtcagccccc tccctgccct gagcgaggag gacgagttgc tgtgcctttt   1680
tggggagtcg ccgccacacc ccgcccgcgt ggaggcgag gccgtcatct gcaactcccc   1740
aagcagcatc cccgtcacac cgccaggcca ggaccacgtg ccgtgacca tccagctcct   1800
ccttagacga ggcaacatct tcctcacgtc ctaccagtac cccttctacg actgccgcca   1860
ggccatgagc ctggaggaga acctgccgtg catctcctgc gtgagcaacc gctggacctg   1920
ccagtgggac ctgcgctacc acgagtgccg ggaggcttcg cccaaccctg aggacggcat   1980
cgtccgtgcc cacatggagg acagctgtcc ccagttcctg ggaccccagcc ccctggtgat   2040
ccccatgaac cacgagacag atgtgaactt ccagggcaag aacctggaca ccgtgaaggg   2100
ttcctccctg cacgtgggca gtgacttgct caagttcatg gagccggtga ccatgcagga   2160
atctgggacc ttcgcctttc ggaccccaaa gctgtccac gatgccaacg agacgctgcc   2220
cctgcacctc tacgtcaagt cttacggcaa gaatatcgac agcaagctcc atgtgaccct   2280
ctacaactgc tcctttggcc gcagcgactg cagcctgtgc cgggccgcta accccgacta   2340
caggtgtgcg tggtgcgggg gccagagcag gtgcgtgtat gaggccctgt gcaacaccac   2400
ctccgagtgc ccgccgcccg tcatcaccag gatccagcct gagacgggcc ccctgggtgg   2460
gggcatccgc atcaccatcc tggggtccaa tttgggcgtc caagcagggg acatccagag   2520
gatctctgtg gccggccgga actgctcctt tcagccggaa cgttactccg tgtccacccg   2580
gatcgtgtgt gtgatcgagg ctgcggagac gcctttcacg ggggtgtcg aggtggacgt   2640
cttcgggaaa ctgggccgtt cgcctcccaa tgtccagttc accttccaac agcccaagcc   2700
tctcagtgtg gagccgcagc agggaccgca ggcgggcggc accacactga ccatccacgg   2760
cacccacctg gacacgggct cccaggagga cgtgcgggtg accctcaacg gcgtcccgtg   2820
taaagtgacg aagtttgggg cgcagctcca gtgtgtcact ggcccccagg cgacacgggg   2880
ccagatgctt ctggaggtct cctacggggg gtcccccgtg cccaaccccg gcatcttctt   2940
cacctaccgc gaaaaccccg tactgcgagc cttcgagccg ctacgaagct ttgccagtgg   3000
tggccgcagc atcaacgtca cgggtcaggg cttcagcctg atccagaggt ttgccatggt   3060
ggtcatcgcg gagcccctgc agtcctggca gccgccgcgg gaggctgaat ccctgcagcc   3120
catgacggtg gtgggtacag actacgtgtt ccacaatgac accaaggtcg tcttcctgtc   3180
cccggctgtg cctgaggagc cagaggccta caacctcacg gtgctgatcg agatggacgg   3240
gcaccgtgcc ctgctcagaa cagaggccgg ggccttcgag tacgtgcctg accccacctt   3300
tgagaacttc acaggtggcg tcaagaagca ggtcaacaag ctcatccacg cccgggggcac   3360
caatctgaac aaggcgatga cgctgcagga ggccgaggcc ttcgtgggtg ccgagcgctg   3420
caccatgaag acgctgacgg agaccgacct gtactgtgag ccccggagg tgcagccccc   3480
gcccaagcgg cggcagaaac gagacaccac acacaacctg cccgagttca ttgtgaagtt   3540
cggctctcgc gagtgggtgc tgggccgcgt ggagtacgac acacgggtga gcgacgtgcc   3600
gctcagcctc atcttgccgc tggtcatcgt gcccatggtg gtcgtcatcg cggtgtctgt   3660
ctactgctac tggaggaaga gccagcaggc cgaacgagag tatgagaaga tcaagtccca   3720
gctggagggc ctggaggaga gcgtgcggga ccgctgcaag aaggaattca cagacctgat   3780
gatcgagatg gaggaccaga ccaacgacgt gcacgaggcc ggcatccccg tgctggacta   3840
caagacctac accgaccgcg tcttcttcct gccctccaag gacggcgaca ggacgtgat   3900
gatcaccggc aagctggaca tccctgagcc gcggcggccg gtggtggagc aggccctcta   3960
```

237

```
ccagttctcc aacctgctga acagcaagtc tttcctcatc aatttcatcc acaccctgga    4020
gaaccagcgg gagttctcgg cccgcgccaa ggtctacttc gcgtccctgc tgacggtggc    4080
gctgcacggg aaactggagt actacacgga catcatgcac acgctcttcc tggagctcct    4140
ggagcagtac gtggtggcca agaaccccaa gctgatgctg cgcaggtctg agactgtggt    4200
ggagaggatg ctgtccaact ggatgtccat ctgcctgtac cagtacctca aggacagtgc    4260
cggggagccc ctgtacaagc tcttcaaggc catcaaacat caggtggaaa agggcccggt    4320
ggatgcggta cagaagaagg ccaagtacac tctcaacgac acggggctgc tgggggatga    4380
tgtggagtac gcacccctga cggtgagcgt gatcgtgcag gacgagggag tggacgccat    4440
cccggtgaag gtcctcaact gtgacaccat ctcccaggtc aaggagaaga tcattgacca    4500
ggtgtaccgt gggcagccct gctcctgctg gcccaggcca gacagcgtgg tcctggagtg    4560
gcgtccgggc tccacagcgc agatcctgtc ggacctggac ctgacgtcac agcgggaggg    4620
ccggtggaag cgcgtcaaca cccttatgca ctacaatgtc cgggatggag ccaccctcat    4680
cctgtccaag gtggggggtct cccagcagcc ggaggacagc cagcaggacc tgcctgggga    4740
gcgccatgcc ctcctggagg aggagaaccg ggtgtggcac ctggtgcggc cgaccgacga    4800
ggtggacgag ggcaagtcca agagaggcag cgtgaaagag aaggagcgga cgaaggccat    4860
caccgagatc tacctgacgc ggctgctctc agtcaagggc acactgcagc agtttgtgga    4920
caacttcttc cagagcgtgc tggcgcctgg gcacgcggtg ccacctgcag tcaagtactt    4980
cttcgacttc ctggacgagc aggcagagaa gcacaacatc caggatgaag acaccatcca    5040
catctggaag acgaacagct taccgctccg gttctgggtg aacatcctca agaaccccca    5100
cttcatcttt gacgtgcatg tccacgaggt ggtggacgcc tcgctgtcag tcatcgcgca    5160
gaccttcatg gatgcctgca cgcgcacgga gcataagctg agccgcgatt ctcccagcaa    5220
caagctgctg tacgccaagg agatctccac ctacaagaag atggtggagg attactacaa    5280
ggggatccgg cagatggtgc aggtcagcga ccaggacatg aacacacacc tggcagagat    5340
ttcccgggcg cacacggact ccttgaacac cctcgtggca ctccaccagc tctaccaata    5400
cacgcagaag tactatgacg agatcatcaa tgccttggag gaggatcctg ccgcccagaa    5460
gatgcagctg gccttccgcc tgcagcagat tgccgctgca ctggagaaca aggtcactga    5520
cctctgacct acaatctcca gtgctgcctt gggacatagg tacctgaggt acctgagagc    5580
ccctcagggg aggaggccga gtggctgtgg ctgaggcccc caccctcccc tggaacgcgc    5640
cccaagccgg agtgggtgca gccggaaccc gcccagcgtc tagactgtag catcttcctc    5700
tgagcaatac cgccgggcac cgcaccagca ccagccccag ccccagctcc ctccggccgc    5760
agaaccagca tcgggtgttc actgtcgagt ctcgagtgat ttgaaaatgt gccttacgct    5820
gccacgctgg gggcagctgg cctccgcctc cgcccacgca ccagcagccg cctccatgcc    5880
ctaggttggg cccctggggg atctgagggc ctgtggcccc cagggcaagt cccagatcc    5940
tatgtctgtc tgtccaccac gagatgggag gaggagaaaa agcggtacga tgccttcctg    6000
acctcaccgg cctccccaag ggtgccggca ctctgggtgg actcacggct gctgggcccc    6060
acgtcaaagg tcaagtgaga cgtaggtcaa gtcctacgtc ggggcccaga catcctgggg    6120
tcctggtctg tcagacaggc tgccctagag ccccacccag tccgggggga ctgggagcag    6180
ttccaagacc accccacccc tttttgtaaa tcttgttcat tgtaaatcaa atacagcgtc    6240
tttttcactc cg                                                        6252
```

<210>   314
<211>   2922
<212>   DNA
<213>   Homo sapiens

<400>   314
```
ggacaccggg ccatgcacgc ccccaactga agctgcatct caaagccgaa gattccagca      60
gcccagggga tttcaaagag ctcagactca gaggaacatc tgcggagaga cccccgaagc     120
```

238

```
cctctccagg gcagtcctca tccagacgct ccgctagtgc agacaggagc gcgcagtggc    180
cccggctcgc cgcgccatgg agcggatccc cagcgcgcaa ccacccccg cctgcctgcc    240
caaagcaccg ggactggagc acggagacct accagggatg taccctgccc acatgtacca    300
agtgtacaag tcaagacggg gaataaagcg gagcgaggac agcaaggaga cctacaaatt    360
gccgcaccgg ctcatcgaga aaaagagacg tgaccggatt aacgagtgca tcgcccagct    420
gaaggatctc ctacccgaac atctcaaact tacaactttg ggtcacttgg aaaaagcagt    480
ggttcttgaa cttaccttga agcatgtgaa agcactaaca aacctaattg atcagcagca    540
gcagaaaatc attgccctgc agagtggttt acaagctggt gagctgtcag ggagaaatgt    600
cgaaacaggt caagagatgt tctgctcagg tttccagaca tgtgcccggg aggtgcttca    660
gtatctggcc aagcacgaga acactcggga cctgaagtct tcgcagcttg tcacccacct    720
ccaccgggtg gtctcggagc tgctgcaggg tggtacctcc aggaagccat cagacccagc    780
tcccaaagtg atggacttca aggaaaaacc cagctctccg gccaaaggtt cggaaggtcc    840
tgggaaaaac tgcgtgccag tcatccagcg gactttcgct cactcgagtg gggagcagag    900
cggcagcgac acggacacag acagtggcta tggaggagaa tcggagaagg gcgacttgcg    960
cagtgagcag ccgtgcttca aaagtgacca cggacgcagg ttcacgatgg gagaaaggat   1020
cggcgcaatt aagcaagagt ccgaagaacc ccccacaaaa aagaaccgga tgcagctttc   1080
ggatgatgaa ggccatttca ctagcagtga cctgatcagc tccccgttcc tgggcccaca   1140
cccacaccag cctcctttct gcctgccctt ctacctgatc ccaccttcag cgactgccta   1200
cctgcccatg ctggagaagt gctggtatcc cacctcagtg ccagtgctat acccaggcct   1260
caacgcctct gccgcagccc tctctagctt catgaaccca gacaagatct cggctccctt   1320
gctcatgccc cagagactcc cttctccctt gccagctcat ccgtccgtcg actcttctgt   1380
cttgctccaa gctctgaagc caatcccccc tttaaactta gaaaccaaag actaaactct   1440
ctaggggatc ctgctgcttt gctttccttc ctcgctactt cctaaaaagc aacaaaaaag   1500
tttttgtgaa tgctgcaaga ttgttgcatt gtgtatactg agataatctg aggcatggag   1560
agcagattca gggtgtgtgt gtgtgtgtgt gtgtgtgtgt gtatgtgcgt gtgcgtgcac   1620
atgtgtgcct gcgtgttggt ataggacttt aaagctcctt ttggcatagg gaagtcacga   1680
aggattgctt gacatcagga gacttggggg ggattgtagc agacgtctgg gcttttcccc   1740
acccagagaa tagccccctt cgatacacat cagctggatt ttcaaaagct tcaaagtctt   1800
ggtctgtgag tcactcttca gtttgggagc tgggtctgtg gctttgatca gaaggtactt   1860
tcaaagagg gctttccagg gctcagctcc caaccagctg ttaggacccc accctttgc    1920
ctttattgtc gacgtgactc accagacgtc ggggagagag agcagtcaga ccgagctttc   1980
tgctaacatg gggaggtagc aggcactggc atagcacggt agtggtttgg ggaggtttcc   2040
gcaggtctgc tccccacccc tgcctcggaa gaataaagag aatgtagttc cctactcagg   2100
ctttcgtagt gattagctta ctaaggaact gaaaatgggc cccttgtaca agctgagctg   2160
ccccggaggg agggaggagt tccctgggct tctggcacct gtttctaggc ctaaccatta   2220
gtacttactg tgcagggaac caaaccaagg tctgagaaat gcggacaccc cgagcgagca   2280
ccccaaagtg cacaaagctg agtaaaaagc tgcccccttc aaacagaact agactcagtt   2340
ttcaattcca tcctaaaact ccttttaacc aagcttagct tctcaaaggc ctaaccaagc   2400
cttggcaccg ccagatcctt tctgtaggct aattcctctt gcccaacggc atatggagtg   2460
tccttattgc taaaaaggat tccgtctcct tcaaagaagt tttatttttg gtccagagta   2520
cttgttttcc cgatgtgtcc agccagctcc gcagcagctt ttcaagatgc actatgcctg   2580
attgctgatc gtgtttttaac ttttttctttt cctgttttta ttttggtatt aagtcgttgc   2640
ctttatttgt aaagctgtta taaatatata ttatataaat atattaaaaa ggaaaatgtt   2700
tcagatgttt atttgtataa ttacttgatt cacacagtga gaaaaaatga atgtattcct   2760
gttttgaag agaagaataa tttttttttc tctagggaga ggtacagtgt ttatattttg    2820
gagccttcct gaaggtgtaa aattgtaaat attttttatct atgagtaaat gttaagtagt   2880
tgttttaaaa tacttaataa aataattctt ttcctgtgga ag                      2922
```

239

```
<210>  315
<211>  371
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  315
gatctggtta agttgtgtag taaagcatta ggagggtcat tcttgtcaca aaagtgccac      60
taaaacagcc tcaggagaat aaatgacttg cttttctaaa tctcaggttt atctgggctc     120
tatcatatag acaggcttct gatagtttgc aactgtaagc agaaacctac atatagttaa     180
natcctggnc tttcttggta aacagatttt aantttctga tataaancan gccncaggag     240
aattcggggga tttnaggttc ncngaatagc ctatatatgg tgcatcggnt aggtcnttat     300
tgattttttg acccttttcg gctttacctn atgggaagac ccngttcntt tttaaatnat     360
ccnggttttt g                                                          371

<210>  316
<211>  276
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  316
gatccgctac agcaacgtga agaagctgga aatnaagcca aagtacccgc actgcgagga      60
gaagatggtt atcatcacca ccaagagcgt gtccaggtac cgaggtcagg agcactgcct     120
gcaccccaag ctgcagagca ccaagcgctt catcaagtgg tacaacgcct ggaacgngaa     180
gcgcagggtc tacgaagnat agggtgaaaa acctcagaag ggnaaactcc aaaccngttg     240
ggagncttgt gcaaaggnct ttgcagntta aaaaaa                               276

<210>  317
<211>  382
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  317
gatctctggt cagagtgaac tcttgcttcc tgtattcagg cagctcanag cagaaagtaa      60
ggggcagagt catacgtgtg gccaggaagt agccagggtg aagagagact cggtgcgggc     120
agggagaatg cctgggggtc cctcacctgg ctaggagat accgaagcct actgtggtac     180
tnaagacttc tgggttcttn ccttctgcta acccagggag ggtcctaaga ggaaggtgac     240
ttctctctgt ttgtcttaag ttgcactggg ggatttctga cttgaggccc atctntccag     300
ccagccactg ccttctttgt aatattaagt gccttgagct ggaatgggga aggggggncaa     360
```

240

```
gggtcagtct ntcggggtng gn                                              382

<210>   318
<211>   344
<212>   DNA
<213>   Homo sapiens


<400>   318
gatcaagggc aatgccaatg acatcggcat ggattatgat tatgccctcc tggaactcaa     60
aaagccccac aagagaaaat ttatgaagat tggggtgagc cctcctgcta agcagctgcc    120
aggggggcaga attcacttct ctggttatga caatgaccga ccaggcaatt tggtgtatcg    180
cttctgtgac gtcaaagacg agacctatga cttgctctac cagcaatgcg atgcccagcc    240
aggggccagc gggtctgggg tctatgtgag gatgtggaag agacagcagc agaagtggga    300
gcgaaaaatt attggcattt tttcagggca ccagtgggtg gaca                     344

<210>   319
<211>   466
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   319
gatcccatgg ctttctttac tgggctctgg ggcccttca cctgtgtaag cagagtgctg      60
agccatcact gtttcagcac cactgggagt ctgagtgcga ttcagaagat nacgcgggta    120
cgagtggtgg acaacagtgc cctgggggaac agcccatacc atcgggctcc tcgctncatc    180
catgtctata agaagaatgg agtgggcaag gtgggcgacc agatactact ggccatcaag    240
ggacagaaga aaaaggcgct cattgtgggg cactgcatgc ctggccccg aatgacccccc   300
agatttgact ncaacancgt ggtcctcatt gaggncaacg gggaaccctn tnggngacan    360
gtattnaaga cacngtnccc acctaggctg tggnagggtg aagggcgagt tttcccaagn    420
tggtgggcct tngttnagan ctttgtgttg ngtttggnnc nngnta                   466

<210>   320
<211>   2409
<212>   DNA
<213>   Homo sapiens


<400>   320
atgcgggggcg tgtggccgcc cccggtgtcc gccctgctgt cggcgctggg gatgtcgacg      60
tacaagcggg ccacgctgga cgaggaggac ctggtggact cgctctccga gggcgacgca    120
tacccccaacg gcctgcaggt gaacttccac agccccgga gtggccagag gtgctgggct    180
gcacggaccc aggtggagaa gcggctggtg gtgttggtgg tacttctggc ggcaggactg    240
gtggcctgct tggcagcact gggcatccag taccagacaa gatccccctc tgtgtgcctg    300
agcgaagctt gtgtctcagt gaccagctcc atcttgagct ccatggaccc cacagtggac    360
ccctgccatg acttcttcag ctacgcctgt ggggggctgga tcaaggccaa cccagtccct    420
gatgccact cacgctgggg gaccttcagc aacctctggg aacacaacca agcaatcatc    480
aagcacctcc tcgaaaactc cacggccagc gtgagcgagg cagagagaaa ggcgcaagta    540
tactaccgtg cgtgcatgaa cgagaccagg atcgaggagc tcagggccaa acctctaatg    600
gagttgattg agaggctcgg gggctggaac atcacaggtc cctgggccaa ggacaacttc    660
```

241

```
caggacaccc tgcaggtggt caccgcccac taccgcacct caccctctt ctctgtctat      720
gtcagtgccg attccaagaa ctccaacagc aacgtgatcc aggtggacca gtctggcctg      780
ggcttgccct cgagagacta ttacctgaac aaaactgaaa acgagaaggt gctgaccgga      840
tatctgaact acatggtcca gctggggaag ctgctgggcg gcggggacga ggaggccatc      900
cggccccaga tgcagcagat cttggacttt gagacggcac tggccaacat caccatccca      960
caggagaagc gccgtgatga ggagctcatc taccacaaag tgacggcagc cgagctgcag     1020
accttggcac ccgccatcaa ctggttgcct tttctcaaca ccatcttcta ccccgtggag     1080
atcaatgaat ccgagcctat tgtggtctat gacaaggaat accttgagca gatctccact     1140
ctcatcaaca ccaccgacag atgcctgctc aacaactaca tgatctggaa cctggtgcgg     1200
aaaacaagct ccttccttga ccagcgcttt caggacgccg atgagaagtt catggaagtc     1260
atgtacggga ccaagaagac ctgtcttcct cgctggaagt tttgcgtgag tgacacagaa     1320
aacaacctgg gctttgcgtt gggccccatg tttgtcaaag caaccttcgc cgaggacagc     1380
aagagcatag ccaccgagat catcctggag attaagaagg catttgagga aagcctgagc     1440
accctgaagt ggatggatga ggaaacccga aaatcagcca aggaaaaggc cgatgccatc     1500
tacaacatga taggataccc caacttcatc atggatccca aggagctgga caaagtgttt     1560
aatgactaca ctgcagttcc agacctctac tttgaaaatg ccatgcggtt tttcaacttc     1620
tcatggaggg tcactgccga tcagctcagg aaagccccca acagagatca gtggagcatg     1680
accccgccca tggtgaacgc ctactactcg cccaccaaga atgagattgt gtttccggcc     1740
gggatcctgc aggcaccatt ctacacacgc tcctcaccca aggccttaaa ctttggtggc     1800
ataggtgtcg tcgtgggcca tgagctgact catgcttttg atgatcaagg acgggagtat     1860
gacaaggacg ggaacctccg gccatggtgg aagaactcat ccgtggaggc cttcaagcgt     1920
cagaccgagt gcatggtaga gcagtacagc aactacagcg tgaacgggga gccggtgaac     1980
gggcggcaca ccctggggga gaacatcgcc gacaacgggg gtctcaaggc ggcctatcgg     2040
gcttaccaga actgggtgaa gaagaacggg gctgagcact cgctccccac cctgggcctc     2100
accaataacc agctcttctt cctgggcttt gcacaggtct ggtgctccgt ccgcacacct     2160
gagagctccc acgaaggcct catcaccgat ccccacagcc cctctcgctt ccgggtcatc     2220
ggctccctct ccaattccaa ggagttctca gaacacttcc gctgcccacc tggctcaccc     2280
atgaacccgc ctcacaagtg cgaagtctgg taaggacgaa gcggagagag ccaagacgga     2340
ggaggggaag gggctgagga cgagaccccc atccagcctc cagggcattg ctcagcccgc     2400
ttggccacc                                                            2409

<210>   321
<211>   457
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   321
cgtcatacaa tcttggagtc ctgcatttgg atggcatctt ccctggagtt cctggaagga       60
atcaaacttt agctggtgaa tatttccata aggctgcgca aggtggacac atggaaggga      120
ccttgtggtg ttctctctac tatatcacag gcaacctgga gacattccct agagatcctg      180
agaaagctgt tgtatgggca aaacatgtag ctgagaaaaa tggctacttg gccatgtca       240
tccgcaaagg cctcaatgcc tacctgggaa ggttcatggg catgaagctt gctgtatta       300
tgttttagca gcagaaactg ggaattgaag tgtcacagac aaatttagca cacatctgtg      360
agggagaggc cagacctggc caggggagat antttgggtn tttaactntg ttttgggaga      420
```

242

```
ttantattaa tttcntctgt tttttcaaat ccgatgg                               457

<210>   322
<211>   411
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   322
tatccttgga tgtacaaaaa attcagaaaa tgatctctgt agatattctg ttttattttg      60
gtcatcttta gaagttatca ggaatgtgtt taaaacaaga agagaacttt tctaaggaat     120
gatacataga aaagatttta ttttaaaatg agttgtaaag cttgtgtttc tttgttgctg     180
caagctatct gcccaagtta atgcaaatgg acacattttt tatgtcagaa aaacacacac     240
acacacacac acacacacac acacacacga aaaacaaagg aaaaaaatgc ttgagctttt     300
tctaacttcc ccttgcagtc tgttgtgtga gcagcctgtt tatttcntct aatattatgt     360
cagtttattc tctttaatgg gantgttaaa aaatgttatt cacaggagtg c             411

<210>   323
<211>   462
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   323
gctggggctt agctgggagg tggtctgaag cagacaggga atgggagagg nggatgggaa      60
gtagacagtg gctggtatgg ctctgaggct ccctggggcc tgctcaagct cctcctgctc     120
cttgctgttt tctgatgatt tgggggcttg ggagtccctt tgtcctcatc tgagactgaa     180
atgtggggat ccaggatggc cttccttcct cttacccttc ctccctcagc ctgcaacctc     240
tatcctggaa cctgtcctcc cttttctcccc aactatgcat ctgttgtctg ctcctctgca    300
aaggccagcc agcttnggag cagcagagaa ataaacagca tttctgatga aaaaaaaaaa     360
aaaaaaaacc gcggccgaaa gcttattncc ctttaagtaa ggggttaatt tttagcttgg     420
gcactnggcc ntcgttttan aacgtcgtga attnggaaaa cc                        462

<210>   324
<211>   2088
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   324
gtatactcat taccaaaaat aacaatatct gcatttcatt gttttaactt tgttttcttt      60
cttttctttt agtgttcctc tgaacaacag ggagaatatc tctgatccca cctcaccatt     120
```

243

```
gagaaccaga tttgtgtacc atttgtctga cctgtaagat atattttttt ccatagtaat        180
atagatgtgg aagttaatag ctttaattt taaccttgtt agtaagaatg tttttaaaaa        240
tatgttggag tataaacatt tacaaacata atctgaactt ttgaatacat taattcctat        300
gttaattatt aggtatcata aattcataaa actttgtcac agataaaatt tagctataca        360
ttttttctaa agaaaaaatc attggcattc atagaaaggc caatttctct taatagttca        420
ataagtgnat ttgatcttat aaaaaggcag gtgtttcttt ggaaatgaca gactccaaca        480
tcaatttttt taaaaattct ccctttcttg tcactataaa taacttgttt agacagatat        540
acagttggga ataagcctaa cacagtagaa attgctgtat ggtgtagata aaacaatcat        600
attatcatat cattaattat attgcttact ttcaactaat atatattaaa gattggaaaa        660
tcccataagc tattctgtat tgtagagctg cttatgtctg aaaggagtca tcccttgctg        720
tcatgtcaga gctgcaagaa ctaattgatt ttggattgaa atgtgtagtc acattttgag        780
acagcatttg aggggattgt ctaatacata tatttgcttt tcagctgtaa aaaatgtgat        840
cctacagaag tggagctgga taatcagata gttactgcta cccagagcaa tatctgtgat        900
gaagacagtg ctacagagac ctgctacact tatgacagaa acaagtgcta cacagctgtg        960
gtcccactcg tatatggtgg tgagaccaaa atggtggaaa cagccttaac cccagatgcc       1020
tgctatcctg actaatttaa gtcattgctg actgcatagc tctttttctt gagaggctct       1080
ccattttgat tcagaaagtt agcatattta ttaccaatga atttgaaacc agggcttttt       1140
tttttttttg ggtgatgtaa aaccaactcc ctgccaccaa aataattaaa atagtcacat       1200
tgttatcttt attaggtaat cacttcttaa ttatatgttc atactaagta tcaaaatctt       1260
ccaattatca tgctcacctg aaagaggtat gctctcttag gaatacagtt tctagcatta       1320
aacaaataaa caaggggaga aaataaaact caaggagtga aaatcaggag gtgtaataaa       1380
atgttcctcg cattcccccc cgcttttttt tttttttttg actttgcctt ggagagccag       1440
agcttccgca ttttctttac tattctttt aaaaaaagtt tcactgtgta gagaacatat       1500
atgcataaac ataggtcaat tatatgtctc cattagaaaa ataataattg gaaaacatgt       1560
tctagaacta gttacaaaaa taatttaagg tgaaatctct aatatttata aaagtagcaa       1620
aataaatgca taattaaaat atatttggac ataacagact tggaagcaga tgatacagac       1680
ttctttttttt cataatcagg ttagtgtaag aaattgccat ttgaaacaat ccattttgta       1740
actgaacctt atgaaatata tgtatttcat ggtacgtatt ctctagcaca gtctgagcaa       1800
ttaaatagat tcataagcat atacctgtgt gaaataaatt gttggaaaaa agtttcctta       1860
tgttaacttt ctttacgtaa gttaacttgt tattgatgaa tggtttgtaa gtatgatgta       1920
atgaagcatt aatcacagaa ctaatacatg tacatatttg aggtggcttt gccattttat       1980
acccataatt aaataaaagg gcaaaatccc ccctgataaa taccatgttt atcatggcac       2040
ataaaacttt atggcagttt ccaaggccaa ttgacatata tatttaaa              2088
```

<210> 325
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 325
```
agaagattca aacaccatct attgagcacc tacattgtgt gccaggtagt aaaataggtg         60
ctttcataca cattgtctca attcctgtga ggtcagaatt atctctgcat ttgaaacttg        120
aggaaacatg ctcagagtgc aagaagcttc cttgcctgag atcacctaga aaggaaccct        180
cagagccggc aactgaatct tggtccctgt gatgtcaagc ccattgctct nccactncag        240
```

244

```
aacatggcct ctagattaat gccaccgatt caggaacacc tccgacagtt ttgaaatacc        300
cccatgttgc cttgtttgtt ttttccttct gggcttcttc tattacagtc tctttcattg        360
ggaaggctct gttagggcca agggccagga ggctggatta ctggacacgg gagtcccaat        420
gtcaggattn gccancattc aggatngctt gggggggtt                               458
```

<210>   326
<211>   1574
<212>   DNA
<213>   Homo sapiens

<400>   326
```
ctctccctcc ttgcgcgttc cgggtctcgc aagcgcctcc aaggtttgtc ttgaagcata         60
gctccagctg gagggtacct tttaagctgt tcaaggtcaa gatgaataca aactcaaagg        120
aggttttatc cctgggtgtt caagttcccg aggcatggga agaacttctg acaatgaaag        180
tggaagcaaa aagtcacctt caatggcagg aatccagact gaaacgcagt aatccactgg        240
caagggaaat cttccgaagg cactttcgac agctgtgcta ccaagagacc cctggaccaa        300
gggaggctct tactcgactc caggaacttt gctaccagtg gttgaggcca catgtgagca        360
caaaggagca gattttggat ctgctggtgc tggagcagtt tctatccatt ctgcccaagg        420
agctccaggg ctgggtgagg aacactgtc cagagagtgg agaagaggct gtgattttgc         480
tggaggatct ggagagagag ctcgatgaac cacaacatga gatggtggcc cacagacaca        540
gacaagaagt cctctgtaaa gagatggtgc ctctagcaga gcagacacca ctgacccttc        600
agtcccagcc taaggagcca cagctcacat gtgactctgc tcagaagtgc cattctattg        660
gagagacaga tgaagtaacc aagactgagg acagagagtt ggtgctaagg aaagactgtc        720
ctaagatagt ggaaccacat gggaaaatgt ttaatgagca gacctgggag gtatcacagc        780
aggatccctc acatggagaa gttggtgaac ataaggatag gatagagagg cagtggggaa        840
acctcttagg agaggggcaa cacaaatgtg atgaatgtgg aagagctttt actcagagct        900
caggtctcat tcgacatcaa agaattcata ctggagaaag accttatgaa tgtaatgaat        960
gtgggaaagc cttcagtcga agttctggtc tttttaatca ccgaggaatc cacaatatac       1020
agaaacggta ccactgcaag gagtgtggga aggtcttcag tcagagtgcg ggtcttatcc       1080
agcatcagag aatccacaaa ggagaaaagc cgtatcagtg cagccagtgc agtaagagct       1140
acagtcggcg ttcatttctc attgaacatc agagaagcca cacaggggag cgacctcacc       1200
agtgcattga atgtgggaaa agctttaatc gacactgcaa cctcattcgc catcagaaga       1260
tccacacagt ggctgagctg gtctagggct tggctatgag caagttttcc agatcaccac       1320
ccaagttgtg tggggcaggt tgagactaga aaatgcctct ttcttccttt ctccatgaaa       1380
tgtgtttgaa acaaatcctg acttaaggcc cagggacttc cttaaaggaa agttgggtgt       1440
ttgaagctac tgttttctct tttgttcact ttacctcttt cttactctta ctagctgtgt       1500
ccctcttatt tataatttat ttattttttt gagatggctg ctaaaccctt ctaataatat       1560
aataaatggc actg                                                         1574
```

<210>   327
<211>   480
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   327
```
gggaagttta ctgggccatc acagactttt gttctagtga ttgtatgtat taggagtcat         60
```

```
agcatgccct acggagatct ggattcttat acactaagat gtgtcttaag aatcacagtg    120
cgtgcttcat ccctttattg aagaacagaa aattatgact actctacaag gtggataata    180
ttttggtacc tgtggctggc cacagccctg ttcctcaaag ctgaattgat agatttctct    240
ttgacttcca agacctagca gttataaggc accttgaaat aaattgtttg tgcctggaaa    300
tgcagggagg gcaatagctt tgtaaattgg nttacatttt tctccttgaa tttttctagg    360
gtcctagtgc ttccgaatca tttaatggca ttgtcggata tccttttaca tttcaattgc    420
aatccatgaa attacattta gaagattctt agtacttaac ggtagtcttc ccatgaattt    480
```

<210>   328
<211>   386
<212>   DNA
<213>   Homo sapiens

<400>   328
```
cttaaaacca actttccatc cgagaagcct cctcagtagt tactctgctc atgagacaga     60
tctgggctcc aagccaggaa aggtgaacag aaaccacaag tgtccagccc tcggtgctgg    120
agtggacgtt aattgtcagc caccagactg tcccggcacc tacagagaat gtttcacagt    180
tctggcattt aaatcctttg atagtggatt gtgctgctgt tagccttagt ttcagtgctt    240
tacaagtctc gcttattatc tcattggtat ttaggtatac aaaacagttg attattcacc    300
acgccaatat ctgggtctct gtatctcatg tagaacataa gaaaatggga actaataggg    360
aactttattt atagcatgaa aataaa                                         386
```

<210>   329
<211>   427
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   329
```
gataaaagca gggttggcct cagcctgtgg tctgtctcat gctctccctg ttcctctccc     60
cgccacccca gggcctccaa gccacctctg gaaatacttg gctctgccca tgcacngcgg    120
aggggcgcca cgtgcgagct gtggaattgg ccccgtggc agagccccat ccttggggn    180
tcgtngggga tgcgcccaag cccccgaggg agaggcctgg ggacaccaac aaatctaagc    240
cctccctagc tgcttggtaa ctgtgtcatg aagctgccgg acagacacac gtggcatctc    300
cctgggcagg agagcaggcc tgcagcatgg gtcctgttcc cgtgtgccgt gggtggcagt    360
ggctgcacct ggcactaggg ctgctctgtg gatgtgggtn acaacggcag gaggggatgc    420
tggcctt                                                              427
```

<210>   330
<211>   327
<212>   DNA
<213>   Homo sapiens

<400>   330
```
ctggaaggaa cggatgggcc tctagtgaca gatccagaga cacacaagag caccaaagca     60
gctcatccca ctgatgacac cacgacgctc tctgagagac catccccaag cacagacgtc    120
cagacagacc cccagaccct caagccatct ggttttcatg aggatgaccc cttcttctat    180
```

```
gatgaacaca ccctccggaa acggggggctg ttggtcgcag ctgtgctgtt catcacaggc      240
atcatcatcc tcaccagtgg caagtgcagg cagctgtccc ggttatgccg gaatcattgc      300
aggtgagtcc atcagaaaca gggagct                                          327
```

<210> 331
<211> 476
<212> DNA
<213> Homo sapiens

```
<400> 331
aggcggtggt gttcgtcttc tctctcctcg attgttgcgc gctcatcttc ctctcggtct       60
acttcataat tacattgtct gatttagaat gtgattacat taatgctaga tcatgttgct      120
caaaattaaa caagtgggta attccagaat tgattggcca taccattgtc actgtattac      180
tgctcatgtc attgcactgg ttcatcttcc ttctcaactt acctgttgcc acttggaata      240
tatatcgata cattatggtg ccgagtggta acatgggagt gtttgatcca acagaaatac      300
acaatcgagg gcagctgaag tcacacatga aagaagccat gatcaagctt ggtttccact      360
tgctctgctt cttcatgtat ctttatagta tgatcttagc tttgataaat gactgaagct      420
ggagaagccg tggttgaagt cagcctacac tacagtgcac agttgaggag ccagaa         476
```

<210> 332
<211> 352
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c

```
<400> 332
ctnntttttt tttttagact gattctccct ctgtcaccag gctggagtgc agtgggcaac       60
agagtgagac tccgtctcaa aaaaaaaaaa aaaaccaaac ccgtatgttc ttttaattta      120
tactatgtat acatttttct tatattagct tagtagttct tagaaaagaa aacctcatta      180
atttgaatct tcttatatgc aatctgngat tattcagaca gggtgaagct gaaatttaca      240
tttaaattat aaattttaaa atgtttgcag tccaattgaa tcctataagg taagagtcta      300
gaaaaaagtt attaaaaaat aaacatttta agtgctttaa aacacacact tg             352
```

<210> 333
<211> 456
<212> DNA
<213> Homo sapiens

```
<400> 333
tagttataga gctaattggc ttttatttgt gatttatgaa ttaaagcagc accactctac       60
aagtacagtg atagctcccc ctgggcaata caatacaaga acagtgggtt ttgtcaaatt      120
ggaacaagga aacagaacca cagaaataaa tacattggtt aacatcagat tagttcaggt      180
tacttttttg taaaagttaa agtagagggg acttctgtat tatgctaact caagtagact      240
ggaatctcct gtgttctttt tttttttaaa ttggttttaa ttttttttaa ttggatctat      300
cttcttcctt aacatttcag ttggagtatg tagcatttag caccactggc tcaatgcgct      360
cacctaggtg agagtgtgac caaatcttaa agcattagtg ctattatcag ttaccaccat      420
ttggggggctt ttatcccttc atgggttatg atggtc                              456
```

247

<210> 334
<211> 429
<212> DNA
<213> Homo sapiens

<400> 334
```
tggagataaa aacagcgaag tcccacatac cataccctac aagacacaag gtgcgcagac    60
gagccttggt aatgtaccgg cgctgcagga agaggctgtc cgccgagcct gggctgctcc   120
agctacgcgg ggaggcggcc ccattgcaaa gtgcagtttc tccgcggagg tggcggtggg   180
tcagtggcag agggccatgg tttccatgtt aaggaagcgg acgtgcatct tggtctcaat   240
gtcgatcccc tgccagatct tcaggaagtc ctcgaaggtg atcccctcgt acacctgatc   300
aggctccatc ttgccccatg cacacgctgg ccgcctccat catggccccg tcggcgatgg   360
agcgagcgga ctccttctcg atgtgagggt ttcccgacag cagctcctcg accactttac   420
atttcgagg                                                          429
```

<210> 335
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 335
```
tttttttttt tttttttaaa gttaaagatt cttttattaa taaattctcc ctcccctcca    60
aactctcccc aaaataaata tctcctcccc gctttgggga gttgggggggg tctgtatctt   120
agggccagcc ctcctagtgg gccagcnccc tagtgttaaa aataggtccc taacccccca   180
gggtgacccc cgtggtggaa tttcaggaca tctgagtgag tggggcctag tgtcaagtct   240
gccccccaag tcagcctggc ccccaggntc ctaaggaagg agggcacccc cctcccctgt   300
gcaaatgctg cagttcctta gtcagtgtca gctgttttgt gtgagccagc gtgaggctcc   360
ctttctgttc tggagccaga ggagnggcaa ccagacanct tggaaggttc ccctgaaccc   420
tgggcccagg ctncggaggt gattcacgcc ccnaaacccc ttgtggttgg aggagcttgg   480
ctccggccgc gtctgggagg cagagaantg ggctctagaa tggatgaatg aatgatgaat   540
gggcnagccc gg                                                      552
```

<210> 336
<211> 325
<212> DNA
<213> Homo sapiens

<400> 336
```
tttttaacat aagtataaat ttactatcca cctagtggta gctaggtaaa attgcaggca    60
taaagataaa aaagaaatca tcaactttgt agttcctcag cttcaaaccc aaacctgcaa   120
gggagaggag agacccagac gcctcaggga ccaggcagat aatacaaata aatgaaacag   180
gccaggtgag agagtacaag tcttgccaaa agaagaaacc cctacttagt ttcaattgat   240
tgtcctcttc tgaaaatgca gatcagaatt gccacacatt ctgaccgatc gagagaggcc   300
agaaattcta attttactcg tgccg                                        325
```

<210> 337

248

<211> 401
<212> DNA
<213> Homo sapiens

<400> 337
gattaagaaa agctaaattt atattaaatt atcataaagt cctaaaatac tgaacatagt   60
ggttaaataa ctccagaaag tccaatctct ccagtgagta acgttaaaac cattacacat   120
gagcatggga gaatcgcttc cattagttta ggacagagag attttgcttt ttacagagta   180
aatcagtgct caaatagata cttcctcaaa tatgtccttt ctacattctg aacagcccaa   240
gtgcaataag atccttcccc ctttccaatc aagaaaatgc cacttttcta cttgctcttc   300
ctccccagac atgagtctaa ggacccaaag tgctcactcc tttactgctt gttaagtgta   360
atgtggggag gctcagaact ggggctgacg ctactgagag c   401

<210> 338
<211> 154
<212> DNA
<213> Homo sapiens

<400> 338
tttttttttt ttttttttta gagatggaat cgcaagaatt cccaggccct cttttattt   60
acagtgatac caaaccatcc acttgcaaat tctttggtct cccatcagct ggaattaagt   120
aggtactgtg tatctttgag atcatgtatt tgtc   154

<210> 339
<211> 401
<212> DNA
<213> Homo sapiens

<400> 339
tttttacgaa accaggttta ttaaaatttc tctacaagtc agaaacggcc atctcactgt   60
tcacatatat acacgtatgt acaggaagaa cctagtgttt ctagctttcc cggcagaagg   120
ccctgccagc ccagagtcct tagtcggata atgtatcaca gatacaacag tcgagcaacc   180
acgagagcgt tagtgcgaca gaggcctctg tcctccctct tctcaaagtc ccatgattct   240
gtcaaggtaa tattgccaat aatcattcac atttcacgtg gttttagaca cgcaggttat   300
tcagacagac acagacaaca aaacaagcct caaagccaga acaaaacaaa acaaaaccaa   360
atcgaacata ggtataaaag gtaaaatata tgtacaaagt a   401

<210> 340
<211> 376
<212> DNA
<213> Homo sapiens

<400> 340
cacgtgaaaa aaagttttat ttagggagct ccagggaatg cggtgggaaa ggagaggtgc   60
agtgtcattg ccgccctctc ctcccaccta gtgcattaat agtggatggg agcatctgac   120
agaagtgaga tcaggcagtg ggtgtctgca ccccacagcg catgttggct ggaacagcaa   180
agtctatctg ctgaggttta ggcaagttca ggttgcccat gattttgaca aactcctcac   240
agctgagggt gagccgaggg ttcagagtcc tctcctcctc cacggtggac actgtgaacc   300
catggtaatc gtgagcaggg tagatcagac agtctcctgg aagtgtgaag atcttttcat   360
ggaccgagtg gtaaag   376

<210> 341
<211> 382
<212> DNA
<213> Homo sapiens

<400> 341
```
ttctctttgt ccagttcctt tattgggggc agggcaccaa gaagaggccc tccgctcccc      60
aaacccagag gcaaaagggg ttggcacgct ccctcccagc ctagtccttg cgtcactgtc     120
catgggcaat tcctctgccc tgcatcttca ggccatgtca ggtagaggta tccatctcag     180
ggacctcagt ggacacttcc gtgggcactg ccagccgcct ggggggcaca taggatccca     240
tacccgctgc cctctccgcc tcttcctgac tgtagggctc gacgctcagc tgcttcagcc     300
ttttcttgtg gtctttggat cggaagtggg tcttcaggtt ggtggaatcg atgaagtacc     360
tcgcgcaggc cagacagcgg tg                                              382
```

<210> 342
<211> 316
<212> DNA
<213> Homo sapiens

<400> 342
```
ttttttttttt tttttttttt tttttttttt ttttctgtta caaacaggtc tttattaaag      60
atgagaagcc aggtctttat taaagatgag gaggggggcag gaaaggggggg cagtgctcct     120
ctacccactg cctttgcctg cccggggtga gggagccct ctgctccacc catgccccc       180
atgatggcac atctgtatga ggctgaggca tgggggggcag tgtgaagaac aggggcaggt     240
tccaagaaaa agaagaaaaa cccttcccac agccctaata aataacagaa gggtttggga     300
tgacctgggc acaggc                                                    316
```

<210> 343
<211> 457
<212> DNA
<213> Homo sapiens

<400> 343
```
ccagtcgggt tggagtttat ttctgccaga gcctggaggc tgggagggta aaggacactc      60
ctttagtccc agagggaagc tccgaaccct cagagcaacc agaagggagg gcagagcatg     120
ggcagcagca ggagtgagag gggtcccctt gtcctgcccc tttgcaaggg ttcaaggctg     180
gtggaggcct ggggcttctg tcgctcagga gttcaggggt ggacgcagaa atggggggaag     240
gagagtggct acgtagagag tgagagcgag attcctaaaa agatgcacag agagaccctc     300
agagagaagc agagggaatg ggttgcactg gctgaggatg gtggaggagc cgtctcactc     360
ccttcctaat gtctatagat caataacgag ggaagaaagg aggacaggga gctgatggaa     420
acacagcttg ccaactgtac ccagtccccc aacaagc                             457
```

<210> 344
<211> 283
<212> DNA
<213> Homo sapiens

<400> 344
```
gcagccgcct cctaagaacc tgctgctggg tcccggcaag cccaaggagc cagctgtggt      60
gcggccgagg agcctgtggc agcggcacat ggcatgccag aggtaaaaaa acgacggcgg     120
cggaacagaa gctggcatct ccccagccat cctatgcagc agacgccaac gacagcaagg     180
```

```
ccgagtactc agacgtcctg gccaagctgg cttcctgaac cgccagagcc agtgcgctgg      240
acggtgctca ccgccccgct gctggacacc cagtgagccg gag                        283

<210>  345
<211>  404
<212>  DNA
<213>  Homo sapiens

<400>  345
acatttcaaa tatattttat tactttccat cttagaaaga atatgaaacc tgcatgcaat       60
gctaatggtt tctgacatgt acatagcata taacacagca gtacaatgcg gcatatactg      120
gggggcagtg tgtggagggg gcgttcttaa gggtatatgt acagaggaaa gggcgcatgg      180
tcatcttagc tttcgaaaga ggactgcact gtttaacatt gaagaattac atggggaatc      240
acaaatatat tgctttagta ctgcatgttc tgttgtggtg agggaaagaa acatgctttg      300
aaggttttcc cttgtcaaca gaatgtgtgt ctgtagctgt gtattgcgca tgtattcata      360
tatttttaag ttttctccta aggttttttgc tgacagtgtt ggga                     404

<210>  346
<211>  317
<212>  DNA
<213>  Homo sapiens

<400>  346
tttggtcttt tatggtcgat tttgtctttt ttcttctttt ttccccattt tttcaaggat       60
ggaaaggtca gagaaaaata aaataaaaca tctttcaata gtctttcctg gtaaaagcag      120
cgtctctctg ggctggggag taaagggtgt ggggcaaggg gagtggggag aggctgaaac      180
cttcccccaa accccagttt tagatccttt ggtttccttc tcccagaaga tggcagaagg      240
gcatggtggg aacagcaggg agaaaatatg gtgatgacaa accccagatg atcaaggggc      300
tgatgctcct ggggccc                                                     317

<210>  347
<211>  265
<212>  DNA
<213>  Homo sapiens

<400>  347
ttttttgagc tttggacaaa tttattgaaa catacaggcg gctgttagca gagaaatcat       60
tccatgattg atgtgttaca tttggccact accttgaatg tataatttaa aaattatatt      120
tttcacaact aagcctttgg ccaaaaaagt catttagcac atctttaaag atcaataaga      180
aatggatttt ggacattaaa aagatcaagt cactgaatta aacagtagca accccatta      240
atctagaatc ccatagtgct gaagg                                            265

<210>  348
<211>  405
<212>  DNA
<213>  Homo sapiens

<400>  348
ttaaattaaa aaacaattta ttgaaaaaga gtaatgcttt atacaaattc ccattataaa       60
accccaaaat gtctattggt ctgtttccag gtgtggtaga agaatataaa aagatcaaaa      120
ttggataaat tctattgtaa caatttcgtt ggtcattttg gccataaaa ttttttttgta      180
atgtttggta actgatatcc acatggaatt acactcacac atcatgaaga tctatgtatg      240
```

251

```
tggcaaaagc catttaaatt ttaacttcca aaagcatata ttctcaggtt tggaaggcac        300
actaaaattt attaggtcca attcctcata agacacggtg gctgactttc cttgtgtagt        360
ttattatgaa gtaccatttc caaactaact atcctagcag cgtca                       405
```

<210>   349
<211>   380
<212>   DNA
<213>   Homo sapiens

<400>   349
```
tttttttct tgttagctgg atatatttct gttttttctt tttttttctt tttttttttt         60
ttttttttg tcacagaaca ctgtttgcag tagaggaaac tggcattgca gtctggtggt        120
ataatggctt gtccacataa accagtacat gttcatcctt tagcgcaaaa agccctaatg        180
gcgcgtaccc tattaaaatt caggacatct ccaatattct ctctctctgt ttttctttgt        240
catctttttt ttttttaaat aaacattttc aaggtttgtc caaaagaagg ccatataggt        300
tcttggctag cggaagacaa ttcagaacag ctgttgcaca cttggactgt caccttctcc        360
aggctggcag ttgatatctt                                                   380
```

<210>   350
<211>   355
<212>   DNA
<213>   Homo sapiens

<400>   350
```
aagtgcttaa gatggtgttt aatacagcag ggagccaaga tacagtagta ggacacagta         60
aagaatgtgg agtgtgtaga tacaataaag aattcatttt atgatctgcc acctgttact        120
tgacagagga gtaagttagg gaaataaatg actcagttct tcatacatgc aaaggtaagt        180
tagttattac aaaagttttt gctgttgttt gtgctgaaag aaaagcatat gcatttaaac        240
atttttaaa aaataaatca ctcaataggc ttaagaaaaa tactttagtt catagttcat        300
tgatctgacg ttttgattta agatcagggg atgaatccag gatgaaaacc aaaga            355
```

<210>   351
<211>   481
<212>   DNA
<213>   Homo sapiens

<400>   351
```
tttttttcat aagtcagaat ttatttcata ccatctcact tatagcattt tcaagtacaa         60
cattctgctc aacatcattt acacttgaaa acagaaaagc acaacttggt aaggcaccag        120
gttacgatag tctggagaga aggccttgct cccattttgg cttgtgtaat acctgggtag        180
tttctcttga gtctgtcaag cagagaacaa ggttataaaa ggtccattta tacatacatg        240
gtaacaagag ataacaaaca gttttgaagt atgctgtatt tataaattat aatggtggcc        300
tacacttgta gttcagccaa agtggcattc tctaaagcaa aattcttata aaatcttctc        360
tgcaatacca agctgcaagt ttaacaattt tttagctttg aagtgaacca actttatatt        420
taactcaaac acatacttta aaaacatttt cggccccaaa ctctatgttc acgaagaaat        480
a                                                                       481
```

<210>   352
<211>   366
<212>   DNA

252
```

<213> Homo sapiens

<400> 352
```
ttttttttttt ttttttgagt attccagcat tatttatttg atcagagtaa aatacacttc      60
ccatcactac aaactgagca caactacagt tgtctacaca ttcatatttt tgacgtgcca     120
acattttgca ttctacatga aacatttggt ttaaacaaaa tcttaagaat tctctatttt     180
gtttcccatc ttccctcctg ttctctccca tcctccaaag atgttttata ttaactgcta     240
tgagatttat ttgccggtca cgtaatacgg aggacagcag ggaacaacac aagatttacc     300
atgcctaggg gatgaatggc aaacccaact ttggctaatg tcattgagaa caacttggaa     360
gcgtga                                                                366
```

<210>   353
<211>   534
<212>   DNA
<213>   Homo sapiens

<400>   353
```
attgatataa aacagcttta tttgagggtc ctagtctgtg aggggtggac agataaaaga      60
ggtatttgtg atagggcatg aagaccttaa gaccctgagg gtgctgtgaa cagggaacag     120
tctgatatct ggaaccaaag ggcaaggaaa ggtcctgggg ctgaagtggg gacaaggggc     180
accaaaaagc cagtgggggc aggtggtgct ggccaaggtc agaggcggat gcaacaggcc     240
ctcttctccc cagggccagg ctcctgtcca gcctgggcac tgccagaggg tgatggcatt     300
ggtccggatg ctgttctgtc tctgcttgga caccttcgca aagatttctt tcaggacagt     360
ctcaaaggct agctgcaaca ttggtagagt ccagggctga ggtctccagg aagagcagtc     420
cattgttttc agcgaacatt cgggcctcct cagtgggcac ttcccgggcc tggctgaggt     480
cacttttgtt accccgagca tgacgacgat cgtggcttca gcatggtcat agag           534
```

<210>   354
<211>   318
<212>   DNA
<213>   Homo sapiens

<400>   354
```
gtgaacaata aagcttttta atcacctggg tgcaggtggg ctgagtccaa aaagagtcag      60
caaagggtgg tgggattatc attagttctt gtaggtttgg gataggcggt ggagttagga     120
gcaatttttt gtgggcaggg ggtggatctt acaaagcaca ttctcaatgg cggagagaat     180
attacaaaat accttcttaa gggtgcgggg gtgcgggcgt ggggtgggtg gggagaatat     240
tacaaagcac cttctcaagg gtggggaagg tgtattgtca caaggtcaat tgatcagtta     300
gggtggggca ggaacaaa                                                   318
```

<210>   355
<211>   601
<212>   DNA
<213>   Homo sapiens

<400>   355
```
tttttttttt tttttttttt tttttttttt tttttttttt gagcttggca aacctttttt      60
attttgtgat aaaaatgctt tcatataaat ttcatcttaa ctacctttag aatgaaacgg     120
aaaagtaaaa acaaagtgtg cattttcctt actacgttta gtcaggaata tgcggtcatt     180
ttattggtta ctgggtttct catacaaaca gatataatat cacttttaag agaaatgtac     240
acaaggaagt aaccatagta ccacttatta gtgggggcct ctgggtacat aaatgtgtcc     300
```

253

```
tcccaaatag tcatcataca ttcaatgtat tggttagggc caaaatccct aaaccacctc      360
tcaacaaaac attacacctt tggtcctttta ttatgcaaaa attacaaatt ggcaaattca      420
ataagaggat gcaatggatt tgagcatcac agccaattgc ttatactaaa atatttaat       480
tctcagactc tctttccctc ataccttttcc cttccccacc tcacataaga aaatgatgct      540
taaaacaaaa cagaggaagc aattatacaa acaaaaaaac ctatccccaa aggcgggcag      600
a                                                                        601
```

<210> 356
<211> 4003
<212> DNA
<213> Homo sapiens

<400> 356
```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat        60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc       120
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg      180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct      240
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc      300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat      360
ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa      420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataatttca      480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat      540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat      600
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg      660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa      720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga      780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca      840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga      900
actagtggag tggaagcgga gacagcagag cgcctgtatt ggggggccgc ccaatgcttg      960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca     1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac     1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag     1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt     1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa     1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa     1320
aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc     1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc     1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt     1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgccgt      1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa     1620
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg     1680
ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcaccaaaa gaggtctcaa     1740
tgtggaccag ctgaacatgt gggagagaa gcttcttggt cctaacgcca gccccgatgg     1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttccttctg      1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga     1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga ggaccagca     1980
gccgggggacc ttcctgctgc ggttcagtga gagctcccgg gaggggcca tcacattcac     2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac     2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc     2160
```

254
```

```
tgctgagaat attcctgaga atcccctgaa gtatctgtat ccaaatattg acaaagacca    2220
tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg    2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc    2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc    2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt    2460
ttttcatctt ctctggcgac agttttcctt ctcatctgtg attccctcct gctactctgt    2520
tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct    2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat    2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa    2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag    2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg    2820
gataaatcag tggttatttta gggaactgct tgacgtagga acggtaaatt tctgtgggag    2880
aattcttaca tgtttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt    2940
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat    3000
catggatctg gtagggggaa aatgtgtatt ttattacatc tttcacattg gctatttaaa    3060
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt    3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg    3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt    3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat    3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt cctttttgtt    3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa    3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt    3480
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt    3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca ctttttttgag tggatgatgt    3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga    3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat    3720
cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt    3780
ggtggagata aagatttctt gagtttgtt ttaaaattaa agctaaagta tctgtattgc    3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc    3900
tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga    3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                       4003
```

<210> 357
<211> 4003
<212> DNA
<213> Homo sapiens

<400> 357
```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat      60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc     120
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg     180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct     240
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc     300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat     360
ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa     420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca     480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat     540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat     600
```
```
                              255
```

```
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg   660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa   720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga   780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca   840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga   900
actagtggag tggaagcgga gacagcagag cgcctgtatt ggggggccgc ccaatgcttg   960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca  1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac  1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag  1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt  1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa  1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa  1320
aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc  1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc  1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt  1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgcccgt  1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa  1620
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg  1680
ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcaccaaaa gaggtctcaa  1740
tgtggaccag ctgaacatgt gggagagaa gcttcttggt cctaacgcca gccccgatgg  1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttcccttctg  1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga  1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca  1980
gccggggacc ttcctgctgc ggttcagtga gagctcccgg gaagggggcca tcacattcac  2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac  2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc  2160
tgctgagaat attcctgaga atcccctgaa gtatctgtat ccaaatattg acaaagacca  2220
tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg  2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc  2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc  2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt  2460
ttttcatctt ctctggcgac agttttcctt ctcatctgtg attccctcct gctactctgt  2520
tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct  2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat  2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa  2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag  2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg  2820
gataaatcag tggttattta gggaactgct tgacgtagga acggtaaatt tctgtgggag  2880
aattcttaca tgttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt  2940
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat  3000
catggatctg gtaggggaa aatgtgtatt ttattacatc tttcacattg gctatttaaa  3060
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt  3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg  3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt  3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat  3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg ctactttgt ccttttttgtt  3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa  3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt  3480
```

256

```
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt      3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca ctttttgag tggatgatgt       3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga      3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat      3720
cttgttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt       3780
ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc      3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc      3900
tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga      3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                       4003

<210>  358
<211>  237
<212>  DNA
<213>  Homo sapiens


<400>  358
gtcagtttac acatacatca tgttaatatt agaccaaggc acaaaacgtt tagtgcataa        60
acccagtttc ttttaagatt tagcatttta ttttagtctc ttatcttagt ttggaccact       120
tgtacccagt actctaccta ctacagacta tttaacttac ccaacaaaat caaaagaggt       180
tgctgaccag atttataggg gacataactg tttatattat caaagtgttt gcataac          237

<210>  359
<211>  195
<212>  DNA
<213>  Homo sapiens


<220>

<221>  misc_feature
<223>  n=a,t,g or c


<400>  359
ggtagtcaaa gtaaaggttt atccttgcat cagaatggtt taaatcttgc aatttgcata        60
tacaaagagt tcagcaacat tcactggcat tataatcaga gcaagatcaa nttataantg       120
taatcaaaga aaatatgata gttgaaactg taataacata catacattat aaagactgca       180
cataagttaa acaca                                                        195

<210>  360
<211>  358
<212>  DNA
<213>  Homo sapiens


<220>

<221>  misc_feature
<223>  n=a,t,g or c


<400>  360
gatacatata tttattatgc tgtaaaaagc aacactacct gattgcattt aaaataaatg        60
tttcccaatt tcagaatact tacaacttgt agttttaaga ttagattcac tttgggaggt       120
tttagaagca aatacattca tagctgtgta atccccagga agaatctaaa tctgacatca       180
ggtcattcag tccctgccag acagacaaca gcatcaaatg gtcaacagct aatccagctc       240
```

257

```
tgcagctaaa gggcagtgtc gggcagcagt ggggtatagc atattaccaa agatgagacc          300
agcaaaaaca acaatgtgta taaagcttta anttaacatg atcatataga gcgctcag           358

<210>   361
<211>   311
<212>   DNA
<213>   Homo sapiens


<400>   361
acaacactgt aagttttatt cagttcaaat atcacatatt agatatacaa taccaattaa          60
ttgaaatgaa cagtacaaga atacatgaag taaatatcat aacatttaag tttcgtctca         120
cttaggcaac aagaaatgct gagtagtatt attacatatt caaaccagac ttaaacttca         180
gaaacagaag gccagatgag tgacctgtat cacaggatat gacaacacat cacctatctc         240
caaacaagaa aaagcatgat tattaagttt atctacacca gcttatttat tcaaatttgc         300
tcttcttatt a                                                               311

<210>   362
<211>   315
<212>   DNA
<213>   Homo sapiens


<400>   362
acttccttca ctagttacga caaaatttaa gaggaataac aaatacaaat tttctgttaa          60
gaacggaaag gtgcaaacta gcagagtcaa tactggtaac cagaaggcac taatccaaac         120
acataaattt caaaagctgg ttatattatg gaataccata tatactggcc tttgccagtt         180
tgggatttct gcaatagcaa taagcctcgt ttctgtttcc aattataaca acaaaaagat         240
gagttactaa tgaacattcc acttacagaa gtctaggcta tgttgataaa ttgaaaactt         300
atctagacta ctctg                                                          315

<210>   363
<211>   267
<212>   DNA
<213>   Homo sapiens


<220>
<221>   misc_feature
<223>   n=a,t,g or c


<400>   363
aaggcttctg gtagggacat tttatttttt ggtaaagcca caatagatag aaatgccata          60
aaaacaaaca tgtaaacaag gtatcagaac tttggttcac tgaaacatct cacacctaaa         120
acacctgngg tacaaaggca ccttgctagg cgctagacag ctaactctgc tgcagccact         180
ttgatcctag ccttggggcc agggatggca caggctgaat ggaagggctg ggacttcagt         240
cacacaggag tcgccctagt atggtct                                             267

<210>   364
<211>   247
<212>   DNA
<213>   Homo sapiens


<220>
```

<400> 364

```
catgccttga ggaaagctat ttatttccaa gatatagact gtacttttaa gacaggactt      60
ttcagaagca ggaaatttta gttgttgcca gagaggtgtg tcaaggacac agtgaaagga     120
gccatgcgga catggggtgg aaggctttnt ccaacactgt tacaacactt ttgtaaatga     180
gcaaaacatc tttaaaaatc cttataaatt ctttataata tgttacacat ttagagacaa     240
tatttac                                                               247
```

<210> 365
<211> 372
<212> DNA
<213> Homo sapiens

<220>

<400> 365

```
tttttttttt ttcacagtga gcattaaatt attattccat acagccctgg ccctggccct      60
tcttgaggga gtggggtttn tggggtntgc ccagcaggga tcctgccaga tgatgtccac     120
atgagaaggc aggtgtccaa cagcttcagc ttcacccagt gccccccaga caaataatga     180
caagtccagg gtcttctgat gtgtcaggcc agcactcccc ttgctgatgg gaaaaccggg     240
gctcggccag ccccactgca tcccctcaca tgatgatacg aggctctngc actgactcgc     300
caatagactt gtggggcagc angctggctc cgttgaggta ggagctcatc attaactatt     360
gacgtcctnc ac                                                        372
```

<210> 366
<211> 501
<212> DNA
<213> Homo sapiens

<220>

<400> 366

```
tttttttttc cttctgtagt cgtctttatt tagagcagaa ttcagactca gctggtatcc      60
cccagggcaa ccccaggatg ggganagggc tggtctgtcc ccacccactt ctccaggatc     120
ctcccagccc ccaggctgnc ttttccctcc aactgtcagc tgcttagctg ctcatctggg     180
gattggagct ggagcatctg tcaaggttgt ctccttgaca aacagcttcc tctttggaaa     240
tggcttcact caggtcctgc aggtcatcga gcaggacaga gagggacccg gggaaggaag     300
acagcagatg agcaccagac aagggaaggt gctcgtggtt acagagggaa acagggttgg     360
gcacagggaa atgagggaat ggggagagag ggaggctctt tgggtccaag ctggggcatc     420
ncttaaaaga ggtttaaggg tntcgaagga ccncagagaa caacattctt cntgcgagat     480
ttttaagagg gagttttctn a                                              501
```

<210> 367
<211> 231

<212> DNA
<213> Homo sapiens

<400> 367
tttttttttgc ttttataaac attcaaccaa catgttcttt aataatctct tctttaaaga   60
acaaaataat caagtacatg gcattaagtt aaatgtctct gcacatgaat ttccacctta   120
taaatctggt atattaaatt gtgctgtaaa tagatttgta tattttcttt tttgagtact   180
atgataggtg aaatggtatg actataaaaa ggatttgttt cttttttgtct c   231

<210> 368
<211> 292
<212> DNA
<213> Homo sapiens

<400> 368
tttaatgcta aaagttaaag aaaaaaaggt actgtaaatc tgacaaatga cagaattcag   60
gtgatatttc catagcgtga ttttaaaata taataatgtt gatatctgag attacactca   120
cttcagttga catgagtttc atcatatata gaaaaagtat caccttcaac ttaaaaaaag   180
taaaggttaa aaggtggcac actttttaaaa tacttggtgg ccaaggaaag gtatatagta   240
aaagttgtaa accatgtgta tgttctcata actttaaatg tgaggccaca tg   292

<210> 369
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 369
tcacgtgtgc acagcttttt tacaggttac aaagtgtttc acatacatca tctcatcaat   60
tcctcacaac agccctgtga ggtaggcagg gcaggggta atgttcccat ttgtacagat   120
gtggagactg aggcccagag aggccagtga cctgcttgag gccacacagc aagtgagcag   180
cagagctggg naccagaggc tggggtgggc cccacctcca gccctggct ctntccactg   240
actgtgctgt cccccaggag gaccccagcc tntgtccaga gtntcagcca canccaagcc   300
aggntcccac cccttgcagt gggtgccgcc tgggaagccc cagaagacag gtttcccacc   360
cccattcggg aagac   375

<210> 370
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 370
gactttnntc cccacctta ttttttcatgt tataaaagtg cacattcaag gaaaagtaca   60
cagaaggaag gagacacctc atgacgaccc cagtatgcag tctgggacat gtnttttcag   120

260

```
anctgattct gtgaatattt catttttat gggtagggtc acatacatat atattttttt    180
ccttccttt gtcatttaac atcctatagc ctaaatgttc ttgaataata ctgacaattc    240
tgtctaagta tcattttaa taggtttgta atatcattgt gggctggccg tgggtggctc    300
atgcctgtaa tcccagcact ttgggnaggc caaggtgggg tgggntcatc tgagggtcag    360
ggcgttcaag accacggctg ggccaacatg ggngaaaccc tgtncttcta ggnaaaaata    420
ccacaaaaat tnggccgg                                                 438
```

<210> 371
<211> 391
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

```
<400> 371
ncagaaacat tttattgaca acagttccca acagagtctt tggggtcttt aagtggcagg     60
tgcagcgtcc acaggcagag tgagggctcc tgaggaacct caccccaaat tccctaaccg    120
gccgaggacg canccccagg cccctctcag gtgggcatgg cagtcccggc agcacccct     180
ctgagcagcc tgctgtgggg aagaagccgg gccggaagcc tcagtcgtgg tgccagccca    240
gctcatgctc cccgccccga ggcccccagc ctntgggaag cccctgcctn taagggacag    300
ctcgtgaaga cacaggaaca gtggttgggg gtgagggtct agggaattgg ggcagagggt    360
ngcttnagca canacctgac ttccctggga g                                   391
```

<210> 372
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

```
<400> 372
taatctttt cttgctcaat tcccttgact atttcacaat ggaaataaaa aagaagttct     60
taggaccaaa tcttctataa ccttattaca caattgggtt atttctatta ttttttaaat    120
atatggaaaa taatcttcat aagttccctt tctcccaaat agtatattgt aaatattctt    180
atacaattaa agatgggtca gaaaaagaat tctacaagaa gtaaccctaa atgaaccta    240
gtctacataa caaaagatgt acaatggtca gagatggcct gactgagggt gtcgggtaat    300
ttgggtaatg ctggttcaca ggnaatgatg gttctaaggg gctgcagggc tgggngagag    360
tacccgacac ccctctctgt gggagggccn ctttctagtn aatg                     404
```

<210> 373
<211> 262
<212> DNA
<213> Homo sapiens

```
<400> 373
ttttaagcaa tgaaatattt tatttgctga aataggtata acacttaaat aaaaattaaa     60
caaatgttta atatctcctt ccatgaaaca gcagcagcaa gagatagcaa gtgttcggaa    120
```

261

```
gtctcttcaa tccatgttat tctgatgact ctttgaagaa agaacttgaa cctcctgcac    180
aggggatt   ccttcactca tagattcccc taacttcatc tcctctttc cttgggctat    240
tagtcagtca atatgcttgt ga                                            262
```

<210> 374
<211> 478
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

```
<400> 374
gcgaccgaca cgtcctccat gtccgcgccc agccggnctc gcgccgcctg cagctccttg     60
gacagccgtg cccgcgtctc ctccgccacc ggggtcagtt gttcctccag ttccgatttg    120
taggccttca actccttcat ggtctcgtcc atcagcgccc tcagttcctg ggtgacctgg    180
gagctcgagc agctcctcct gcacctgctc agacagtgtc tgcacccagc gcaggtaatc    240
ccaaaagcga cccagtgcca gttcccagcg ctggccgctc tgccactcgg tctgctggcg    300
cagtcgnggc tccggctctg tctccaccgc ttgctccacc ttggcctggc atcctgccag    360
gaatgtgacc agcaacgcag cccacagaac cttcatcttc ctgcctgtga ttggccagtc    420
ggctcctggg gaaggacgtc cttcaacctc gtgccgaatt cttggcctcg aaggcaaa     478
```

<210> 375
<211> 429
<212> DNA
<213> Homo sapiens

```
<400> 375
gctttcatat aaaaatgtac tgtagtaatc agtaagaaaa agaaacaaca ttggctaagt     60
cacgaatagg catttcacca tatgtacatg ataaatggcc aatcaaaata aggaatgggg    120
ctcattctgc tggaaattaa atacattcaa acaagaacag agatccatta gcaaaatgtt    180
taaaaataat atcacagggt taccaggggt atgacaaaaa tggacacttc catacacact    240
aggtgaatat attggtgaaa atagttcaga taaacataca accatgtatg taaaagtatt    300
tatcatcaat gcattatttg tagtagcaaa aacaacaagc agccttgtga aaccagttta    360
atgtcctcag cagggaatta ataatattat tgtatattca tgaaattgac accatgtggc    420
cacacaaat                                                          429
```

<210> 376
<211> 503
<212> DNA
<213> Homo sapiens

```
<400> 376
aaagaattac cataagtttt attttgctt agttttatta aaaaaataaa tatgtcataa     60
agctttcttt ttccttaggg agaaaaaaag gaacaagtct cataaaccca aataagcaat    120
ggtaaggtgt cttaacttga aaaagattag gagtcactgg tttacaagtt ataattgaat    180
gaaagaactg taacagccac agttggccat ttcatgccaa tggagcaaac aacaggatta    240
actagggcaa aataaataag tgtgtggaag ccctgataag tgcttaataa acagactgat    300
tcactgagac atcagtacag atacatcttg cttaaacaac acagaagttc ctgaaaagtt    360
```

```
ttgtgtaaat gatataacca caaacattac caggagagct tgggtaactg aaagaattcc    420
atggcgaatt cctttggtga acaactactt tcacttttgg taaatccagg tatttgcttt    480
ttataaggag tttacctagt tgc                                          503
```

<210> 377
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 377
```
ctaaaattat tttatttttt ataattttct aacacatggt gttagaaaat gaattttggc     60
accgtgatta agaatttctt ttcaagttta acctttacat taaaaacagt agctacaata    120
aggatatttc aaccttactt agagaagtga taaancatca agtcaacaag tattttttgtt   180
ggagaatttt tttataagcg ggatagaggg aagttaacat agacactcag aagaataaaa    240
tggaaattat gccaggaaga taaaaaagca aataaccctc cccccaaaaa aagaataagg    300
agcgagacaa agggcaaaac ggaagaagca aggctcaaca acttgtttt cctgatataa     360
aattcaagta cttaaaaagt ttttttaaaaa ataattaaat gcactactca tctcaatgaa   420
attttttcgtt ttccnatttt ccagaacttt ctaaaaaagg aaaccag                 467
```

<210> 378
<211> 482
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 378
```
caatgtgaaa ataaacattt attataaaaa ttagttttga cattttaaag tgaatgcaga     60
caaggtgttt tccagttcaa aaggtccatt gtaagctaga gaagtaaatt ccaaggctgg    120
caataactga ctcatattct tcacaagtgg cctagacaat aaggaaccat tcacctcaaa    180
ttcacagagc catgaatcac ctctgcttcc ccatgacctt ttccatatcc ttcctactct    240
gtcttccaac catgacacag aactgaaaca tactttaaaa atctcatcct tggctaggca    300
cggtggctca catctggtaa tcccatcact ttgggagggc caaggcaggc ggatcaagaa    360
ggtcaggaag tttgagacca gcccgaccaa catggtggaa ccctggtctc cactaaaanc    420
ccaaaaatta ggccaggcat ggtggcacgc acccgcaatc ccagctactc aggngactgn    480
gg                                                                   482
```

<210> 379
<211> 252
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

263

<223> n=a,t,g or c

<400> 379
ttttttttgat gctgaaagaa gactttaatg tgcacaaaga aacctcacat tagtgacagg   60
gagacanagg aaggagggtg gggaggactg aggcccaggg aaaccagagc tatggagaca   120
gaggccttag ggaagaggag atggctggga ggaccngctg aggggtgggc gaggcagaga   180
ggcccatccc ttgctgagag gagaggggt cggggcggtg gcagaggcag gctcttgcag   240
agaggagagg gg   252

<210> 380
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 380
cngcagttgg gggtggggtg ttctggttta atcatattca gagtttgagc ttgaaataac   60
caactcaaga cccacaggag actatgtcac cagataaacc cagtgctaga atccaatgtc   120
cagcatcttc aaccactcag gagtgtttgc tgagagacca ggtggtgctt acccacccaa   180
caagcacttt ccatctttgg gtttgcccaa gatgtttacc ataaatgaaa ggggtggga   240
aaggattata gttgacacca acataaatta aatatccaat tccagcatat gtgaca   296

<210> 381
<211> 165
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 381
ctctttgagt aactttattt tggaggagtt ccataagcat taggaacata cataaaatga   60
cacaccactg ttgacaatga aaaaaaaaac agcatttgat attttccagc tttttaagtt   120
aaaaaatgat tcagttaaaa caaaacaaaa gtttagatat tttag   165

<210> 382
<211> 319
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 382
ctccactcca ttgttttatt atgtacaaac gctacagaac gnnggggaca gacacgcgtg   60
gggtaagaag ggcctggtgg gaggagttca cagagcagac ggtgcactgg gaccagnaga   120

```
gcagaacaca ggccataact ataggcagg tngggcagga acggggttaa aaacgagatc    180
caagccagcc agatcgcagg aggtgcgggg gcgtcgtccc cttctnttct cccccaagg    240
tcacagtgca tgcaataaaa tatatatata ggagctagat ccgtcctctg caagggctct    300
gaagggtcca aaactccct                                                319

<210>   383
<211>   250
<212>   DNA
<213>   Homo sapiens

<400>   383
cttcattaac cctttattac aagtcacgct cttatagaag tatatgtgga cttacgtgaa     60
aaaatcaaat gtatccaaga ataaaaaaca cagcacataa agtagtatat gcattccagt    120
gttcgcgcca gagacggcgg gcgcccaagt aaaagctctt ctaaaacggc ctgactgggg    180
caggcgggtg cgaacggttc cgggcctcag gcacagtgtg ggggccgcct gcctcctccg    240
cggcccggcg                                                          250

<210>   384
<211>   170
<212>   DNA
<213>   Homo sapiens

<400>   384
ttttggtaca aaaggtgtct ttattgaggt ctgggttaaa attaggcact tggccacgag     60
cagcagctta aatatgaggc aagcagtcag gggttagcca tgcctggggt gggttggggt    120
catgaggcta caggcacaga ctgtccccag gtggacagaa gtttggagca                170

<210>   385
<211>   281
<212>   DNA
<213>   Homo sapiens

<400>   385
ttttttttcct caaaagtttt tattcttttt catctttta aactggcaca ctgcctggta     60
tacaccgcca gtaggcattc agaaaagttt cttttttta aatacacaat ttataatact    120
gggaagattt catttcagtg tttcccaaaa cattattcct ggaaagggtg tactctccca    180
tgactctgga taatagaagt tttgttctga ttttttaagt cacctcagac agacactgga    240
acacgttaga tctaacactt aagtgctttg aaagggcagt a                       281

<210>   386
<211>   139
<212>   DNA
<213>   Homo sapiens

<400>   386
aatgcagcca aaagtgatat ttgctttct cagaaccata atcgatacaa gatgcagtga     60
ccaattcatt ccttaaaaca cctgggctcc ttaagcggct agaagacaca agttacatcc    120
agcccatcag ggagccaga                                                139

<210>   387
<211>   285
<212>   DNA
```

<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 387
tccagcccccc cgcgtgcatg cggcagacat ttatttgcac ttgtcacata gtagcctgtg   60
aggtagccca ggatgaagat gatccagaag agggccacgc gcccagcacc ttcatggcga   120
tgcccagctt gcccgtgcac agcctctggg agatcctgcg gcanntgagg cctcttctgt   180
gctggacaca gcccctaggc tgaactccgt ccctgctgcc gtcctcccac ctactatagt   240
gggacgtggc tctcctgggg gctgcatgct ntgggggctn cagcg   285

<210> 388
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 388
ttggggtcgg agtggtttta ttgggcagca ggggctcang gccggtgggg cgtcaccgat   60
acaagtagtc agcctggatn ttggcggcga tctcggcctc ccacttgtcc ccgttnttga   120
gcaacttctc cttgttgtac agcagctcct catgggtctc cgtggagaac tcaaagttgg   180
ggccctcgac gatggcatcc acgggacagg cctcctgggg agaagccgca gtagatgcac   240
ttgggtcatg tcgatgtcat agcgggtggt ccnggcggct gccatcagct ctttggctca   300
gccttcgatg ggtgatggcc tggggcnggg caaatggcct tcgcagaatt ttccaggcaa   360
ttcaacgttt ccttcccc   378

<210> 389
<211> 267
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 389
ttcanctcct tttattgaca gaaatagaaa tttgtgctgc agaggcagta gtacctcaga   60
gcatgagaag gtagtcaatg gggctgacat gacaagccac aatgctggcc aggggtccta   120
ccatagtggg agaaccaaaa ccacaaaaat agcaggaggt agcaaacatc cccaacaccc   180
agtgtaagca tttccatttg cagagagctt ggccatgcat ctttaaaaac ggggtcccct   240
tcacagctgg gcagggtatc atgtcag   267

<210> 390
<211> 386
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 390
```
aaattatata ttacatgttt attaagagca caacttttat gtaaaattta catttaatga        60
aaaaaatcaa aaatatttac aaaatcttgg aagacagatg tgcattgttc taattacaat       120
ccaaagtagt aaataacaat cctttaaaac tcacatttat tagagttgtg tttacaaatt       180
cttggttaaa gaggcagcta caaagtttat cactatatat aagcaagaac cagcttgcta       240
gggtacattt cccattgaaa atctactggg tctcttttac accattaggg ggattttaa        300
atggggnaaa aaaaatcaat ataaactcat atgggcttca aaattggtaa cctgtacccc       360
natacttggg gnatggaggg ctgtgg                                           386
```

<210> 391
<211> 220
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 391
```
atacaatang ntttattgag gatgtgtcaa tacagttaac atggttgctt gtcttttcaa        60
aaagaagttc cattttcttt gattcccaag tgcatttttc ctgaatcttc tgtgatacag       120
ggcacatgat aggtatgtag agagctaagc ttcctatacc aagttagaag tgaaatgact       180
agtgggaaaa catttaaact ttaatcttaa aaaaaaaata                             220
```

<210> 392
<211> 357
<212> DNA
<213> Homo sapiens

<400> 392
```
tttttttttt ttacaaattc ttttttatta gtcaaaatca caatcacctt gattaaaaag        60
gatgggacac tccaccctca gcagaaaatg atacagttta tagaaaacct ccccgcccct       120
cccacacccc aattaaaaac tacaaaaaaa tctcccctcc ttccctacga tgtcatggta       180
gtctgactcc tccagtggca ctgcagctct ggagtggcca gctcaccaca gcaccctcca       240
cttcaccttg gggagaggag ggatgctggt ggttaaggag gttaaaacca ttagttccag       300
taatgccagt tcccaaacat gcacttcctt cctttccccc aaggtctggg accaagg         357
```

<210> 393
<211> 332
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 393
```
tttttttttt ttctggagca taatgtttta ttgttgagcc tcctaattta caacaatgtc      60
ttttgaaatt tgcttataaa attttgtcac agggagcaac aatgttaacc taattattat     120
tcacttattt tcattttta aaataaatga ctataaataa ctgtctcttc agttaggatc      180
agggatatca taaaaacatc actagcgaga catattttag tattaatact gatgcaaaaa     240
ntgaaatagn gaccnaatat ttatatatat agcactatat atatttttat atattgnata     300
ctcatatcaa aacttgccat ttctcttaag ta                                   332
```

<210>   394
<211>   436
<212>   DNA
<213>   Homo sapiens

<220>

<221>   misc_feature
<223>   n=a,t,g or c

<400>   394
```
tttttttttt tttttttttt tttttgttac cagaggaagc agcttttatt gatgggttat      60
ctccagaaac cagaaagact atatgtactc actttcagtt accccgtgc ctccagantc      120
gcatgttgct ccacctgggg gcggatataa attacctcta gattgtccaa agcccagtct     180
ttcccttccc tgtgcagcct tagtaaacta agtagcagta ctgtttggtg tgtgtttgtt     240
tcttccccag caatgcctac tgcagctact tagtaacaac tagaggtgga gggtttccgg     300
ggaagcagtt aggatgagtt aagtgtgatg cacagggaaa atagtatcgt aggcctatca     360
aagggnccct ctgccctgcc tcagtgggct tgatttcttc attgggttgc atttgctctt     420
tgtgttggga tgacgc                                                     436
```

<210>   395
<211>   364
<212>   DNA
<213>   Homo sapiens

<400>   395
```
tttttttttg ctgttatgat tagatattta ttgagcacca ggagagagtc agaacattag      60
acttatagtg gaggagcaga actgaaccct ggcctgtgaa ataacaattt caattaaaag     120
ctgtctggcc ctgaagaaag agaaatgatc ctggatatag ctggtcctct gagctggcag     180
agctgagcct ccctcgggtc ttctggtggg caagatgcca aagttgaata gtgtctgtag     240
ggcatgatga ccaagtccta gtgctatggg catcttccct ctggtattta ggagaggagt     300
accagaagcc cccggcagag gatactagga agggcccaga gccaaatcca gcagctgggc     360
ttac                                                                  364
```

<210>   396
<211>   416
<212>   DNA
<213>   Homo sapiens

<220>

<221>   misc_feature
<223>   n=a,t,g or c

268

<400> 396

```
ancntttann nnttccaagt cattagcttt atttttactg aattcagcat gggatgacaa    60
aaatgcatta tatcactacc atccattatt acatgtagac atttatcctt gtattcttta   120
tatgtccatt ttctacgtta aatctgttaa ccaatactaa ttnaaattac atgatttcct   180
actaaaaata tgcagttcat ataagcaagg gcaaataaat cctccttaaa acattttatt   240
cctttataat tgaggaactt aacagtctta atgggctagg ttcttaaaaa atgtttatag   300
ggnttaaggt ttatttaagg ggaggccggn caaacaaaac atattgtaaa actaggtatt   360
ttcccggagg ccatttccct tctcttccct tcttcccggc aaacnggggg ttttta       416
```

<210> 397
<211> 320
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c

<400> 397

```
agttntgggg tcttgtcang ttgcccaggc tgatctcaaa ttcttgggct caagcaatcc    60
tcctgccttg gcttcccaaa gtgttcagat tacaagtgtg agccactgac ccagaccaag   120
aaattttaac cctaactaaa tacccaaaaa aagtgtatat atgttccaca aaggacatgg   180
gtaagaatgt ttatagcagc agtatttgta atagccagaa actggaaaca agccaaacat   240
ctatctacag cagaagagac tattgtttat ttatacaata aactacaata tagcaataaa   300
atgaatgagc tacaacaaca                                                320
```

<210> 398
<211> 284
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c

<400> 398

```
tggaaaaaan nacaacttta ttttcagtca tttctatttc cttggttatg aacaaaggta    60
gcaaagtgca gttgtatcag cagtgccaat agaaattaca gagtttttca tatcccttta   120
cagtttgcca caggtatctt aaaatattgt ttacactcat ctctcttcag tttaccattg   180
tttaataggc ctaccctcga tcttttatt caatatgtta ataaagaaac ctatacacat    240
agtatcacgt tatacatttt aaaantnttt tgacaactgt atat                    284
```

<210> 399
<211> 316
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<223> n=a,t,g or c
```

<400> 399
```
agacagcttt tgagtttatt tggcttctgg cttcactgga ncccgaggct aagactccaa      60
ccctggctgg ggcagcagga aggcatccag agagccctgg ccccagatga cccccagggc     120
aggaggtcca tgctctaagc cctagggcag gggccgcagt agcaggantt ggtcaaaagt     180
gctggtgaca gctgaggccg gcccctttc cctgcacctc ccctcctccc tgnatcaccc     240
cagcaggcaa ttccctgaga caggntctgg gtcctcccaa ccagttgggg tacagttttg     300
gggccccant agggca                                                     316
```

<210>   400
<211>   316
<212>   DNA
<213>   Homo sapiens

<400>   400
```
ctggtttaaa atatttattg attaaaaaaa attaaaaatt ttttatacaa aggtgatgag      60
aaaaaatctc atgcaaactc cgggcataca ataaaaataa ctcaaatatt aatatgatga     120
ttttgtacaa aataattctt ttgaagtagg accggtggca accaacacgg ctccctgctc     180
caggccggga cgcccctctg ggaggaacgc gcggccaccc ttggaaacct gtaagtgatc     240
cacggtccag gtgtggaatg ctcacagttg tcactatgat gaatgatgaa aaccctattg     300
ctgctactca gaaacg                                                     316
```

<210>   401
<211>   349
<212>   DNA
<213>   Homo sapiens

<400>   401
```
tttcaggtaa caaagtccag tctgttttat ttttaacccca aatattccaa atatacagaa      60
aattaccagt acaaagttaa acacattcag atttatttac acaatgctaa agaaatttga     120
gttttatttc cattttgtgg aattttatca tggggtctgg ctttaatgtg taactgacgt     180
gggtcactga aactcgatta tcccacctca catgcaattt tctgtcctaa gggaatagaa     240
aacttgggtt tttagggcac atgcagtaat gatcttaata ctgctttaca ctttcgtggg     300
aaggcagctg tcccacagcc tggggaagga ccacatgctc agaaagggg               349
```

<210>   402
<211>   413
<212>   DNA
<213>   Homo sapiens

<400>   402
```
ttttttttt cactgaatgc ataaagtcct ttattgaaaa tattgggata gcactgcatt      60
acatatagtc aatatccata aatgaagggt cacacatttc tgaatggaca atactgtttt     120
acatagagaa cacagcatct ggatatgctc tcacaattat agtatcatgg actaaactag     180
gtcagagtga agtatatgca aaatgaccat ttggttttt tccattttat taatagcata     240
tggttgcaga tggtgtaaat ggtaaacgtg atatcatgag acattcctga tatctcacac     300
caacacatta tttaacgagc aggttaaggt gaaactgcca gtatgctgtt agtcaagagt     360
cctcagtagg agaacttgag tgaaacgtac acccaggcta cagatttaaa att           413
```

<210>   403
<211>   335

<212> DNA
<213> Homo sapiens

<400> 403
```
tttttttttt ttcagcatta caaaaacttt ttttttgctt tttaggaagt agcgaggaag    60
gaaagcaaag cagcaggatc ccctagagag tttagtcttt ggtttctaag tttaaagggg   120
ggattggctt cagagcttgg agcaagacag aagattcgac ggacggatga gctggcaagg   180
gagaagggag tctctggggc atgagcaagg gagccgattt cttgtctggg ttcatgaagc   240
tagagagggc tgcggcagag gctttgaggc ctgggtatag cactggcact taggtgggat   300
accagcactt ctccagcatg ggcaggtagg cattc                             335
```

<210> 404
<211> 275
<212> DNA
<213> Homo sapiens

<400> 404
```
aaagctacaa acctcaaggt tgttttattt aaaccaaata atctgagcaa gacatatata    60
cattaaaaac aaatgaacac attaaaattt cactatttta caatctaaat tctagcaaca   120
tatacaaata ctgagtgact acagtacatg ccgaggtaag ataagtacat tctgggagaa   180
tatcactgac gctcaaacca tttttatttc caatatgtat ttcaatacat gtttgtttcc   240
acttttccca gtgccacaca cacacacaca caaa                              275
```

<210> 405
<211> 398
<212> DNA
<213> Homo sapiens

<400> 405
```
caaagtttac aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa    60
actatagagt ctttataaac tattttgtat atcatattca cttcctaatg cttactgcag   120
taactgtatg aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat   180
gtaaaatgtt ttcacagtac tttggattta taaaagaccc cattatttta acttttgtgc   240
aacctgtttg aaatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact   300
gagttgctga agacatctta ctttcttgaa tttctactta aacatccatg tggtgcactt   360
tttcaggcag tgtaataagt ggcaaataaa taatcaat                          398
```

<210> 406
<211> 459
<212> DNA
<213> Homo sapiens

<400> 406
```
tttttttatta tgtaaatgcc tttatttgaa ctactacatt gctaccagat tacatcactt    60
ttcagagtta gagtaacata ataccttgga aactatagca aacagcttga caaagcaaga   120
gtacattaat tcctacatat atactttat ttttagtgac cacatttctt tgtttcaggt   180
gtaaaattaa aaaatatatt gtacacttag catacttggc ctaccaaatc ccgtctaagt   240
tctgagcaca ctctctcctc aaaagtatca tattcaacag cattttaaat ttagagagag   300
agtttgatga tacaggtttt aaaacaaata agcatgtatt gaaccaagtg atttaagaca   360
aaatatttca attgtttaca gcttgggtat gagagggaag atgcaaattt aaggtacatt   420
tttcctctag ctacgatggt atgttttact tacctggat                         459
```

271

```
<210>  407
<211>  381
<212>  DNA
<213>  Homo sapiens

<400>  407
tttttttttt ttttcattca acaagtgttt attgagcatc tactacatgc cagacactat      60
tctagaaacc tgggaaagga ggggttaggg tagcttggag ctgtcccagc tgtagctctg     120
tctcccagaa gtgaggtctg caggggaaca gggtctgggg gtcctcctgc ctgggagagg     180
gaaggctgag tgtataaaaa ggtggaagcc tctagaaatg agaaggctgg gtgtgtggga     240
ctcatgctgg tgccttccca gacgaaggag agggcccaga ggaggcagct tcctggagca     300
gagacggcag caggagcgcc cgtgcccggc atcacctcct cttcagcacg gatatgcagg     360
acttcttgag gggcccgatc t                                              381

<210>  408
<211>  598
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  408
cacagcaaac ggangnangg cctgtatttc acacctgctc actcactcca tggcttagaa      60
aagaacacgt ccaccgcgga ggccgcaatg cccacctaga gcaggtcgta gaagtagtcc     120
aggccctggc cagctcccag atagagaccc caacgcccag ctcccgggcc agctccagcc     180
gcacctgcag ggacttcagg gttgggtaga agacgacgtg cctcccactg cggctcttct     240
tgtactcgaa gaagtgctct gagacctggc tgtcccacac catccggggc ctgtggtcct     300
tcagtgtctg gatgtacctg gccccgacaa caggctcacg ggcatccttg gaggtcgcgt     360
agtccatacc ataagaagtt tgagccccag gaggattttg cttcgccact ttggacttcg     420
ggtccaggac ctggacgcag gctcgaaccc aggacagggg tgcattaggg ccaggctgat     480
gcgctgtaga gtaatcgtag gtcatgaagc tgaaaccatc cagnagggg gcagttntca     540
aatcctttgt ggtgaaaatg ccanttggtc ggtcccgggg tgattgnagc ggaatnac      598

<210>  409
<211>  359
<212>  DNA
<213>  Homo sapiens

<400>  409
tttttttttt tttttaaaa atcagatggg gactttattg tgatggtggc aggtccacca      60
gcagatgcaa atgtggggtg ctgagagtgg caacacaggc caccccaaac caacttcact     120
ccctcccctg tcctcagcca gtacagaagc caaatgtagc cccagcccta gactccagcc     180
caggcagagt ccaagggagg ggtgtcaggg tcagaagtca cagggagccc agtgactatc     240
aaggtggctg agagcaaggc tagggtaggg atggggcaga gaaagggcag ggggtgcagc     300
ccaggtggcc caaagcaaca cagaggagca agggctggca ttcaagtcag caggtccct     359

<210>  410
<211>  241
```

<212> DNA
<213> Homo sapiens

<400> 410
tttttttagat tcatcttttt aatgacatcc taaaattcag aggaggggcc agcgggacct   60
ctgggctcag cggctgtgaa ggagggaccc gcaacacccg ctaaggcagg taattgcaag   120
aaggcactcg cgagggggac ttcaagcccc tcttctattt cttcatataa aatcaggggg   180
atggggaaag ctccaagggc gagggaagca gagagtttct ctcccagcct atggaataag   240
g   241

<210> 411
<211> 333
<212> DNA
<213> Homo sapiens

<400> 411
ttaataaagc agaaatgtat ttattaggca cccttgttcc tcacagagga gcaagatcca   60
ggcctgagcg cctgggaagt ctcttgaggt tgcaggaatc tccagagaaa cataggcgct   120
gcccagccac caccccgaga acactatttg ggctggagtg tgaccgccga ggtgatcctg   180
gcaggaggct ggggttggct cctcgactcc acaaacactg aggagtgggt ggggacacca   240
ttgacaccca cccaaacact ggcagagagg gaaggccctt ccagattctg gggcacatgt   300
tgctgggcct gccaggggga aggaggagcc tgg   333

<210> 412
<211> 335
<212> DNA
<213> Homo sapiens

<400> 412
caagtttcaa tcatttaatt aacatcttta aatgaaacac agttttcttc atgtgtctca   60
ctcaggcttc agggcagagg gaatggattt ttagacatat caaagactca aaaatttaaa   120
gaaatatata tatgtatata tatacttcta acattttatg gaaattaaaa atcagaggct   180
tttggtctct ccatttactc taggtcaagc tcatttaccc cagaggacaa agaagggctg   240
cctcttctag accctccctt ctcctttgtc ctctgtccca cccagcaggg aaacaagctc   300
agaagatcct aacaggatag agttccagta atgtt   335

<210> 413
<211> 329
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 413
tttttttggg atgcagcact ttctttattg cccatccagg gaacagccaa gccagctcca   60
tctgcattct ggctgcagcg tgtacattag gggactcagg ggccacagtg tgggaccgtg   120
cacactggca aggcactggc ggatntgggc aggccagttg gacatggata gatgagaatg   180
acaactcaca gatgtcctag cttctgctgg cccagctgcc ancactgnca tcaccctttt   240
gcccagcatg tgtgcattgt cacccaaaac atcttgaaac ttgccattag tgaggcattc   300

273

```
aacaaagaag taagctaagt gagtaggaa                                     329

<210>  414
<211>  439
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  414
tttttttttt tttagtcttt taatgttagc cttttaatat tttccaataa gtgctttcaa     60
ctcagcaata tacatatcat gctttcctca ttattattga tccatcaata aatatacaaa    120
aaccagagga agggtgtgct ctgaaaagtc aaagtaacaa taacagtggt cattgtacag    180
cacaagaatg aacaatgggc tattctttga aaactcaaaa caaatgattt acacaaagac    240
atatctataa cataaaggtg aatggaccat gttattctta ttcttaagta cattttgctt    300
ttccagataa gtcaaatgtt tcctctctcc tactcctctg atataacagt attgaatgaa    360
tgttggctac aaaatcaatt cttggtgttg ttatgaatct caatataaaa cttttggaaa    420
ggttctgcta gaaaagccn                                                439

<210>  415
<211>  374
<212>  DNA
<213>  Homo sapiens

<400>  415
gagaggtctg ctactttatt ttgataatgc agggatatta tttatctttg cagaatcagg     60
tgactcccaa cgttcccgga atcttctagt ggtctgtgtc aggggtctgg gctggctggg    120
gttcagtgat gtctactgga ggcagcttcc atgccttctg gggtcctgag tctccatggc    180
ttgtggggtc tgggtccccc ctggattagt ggatggccag agtggcatag acactgggct    240
cagctggaga ggccccttcc tgggatggag gaggctcagt tgccttctgt ctgaagggta    300
aaagctgtgc agctgggcgt aggtcacatc ctggggggct tcagatgcag cagcctcagt    360
gtccatctgt ctgt                                                     374

<210>  416
<211>  356
<212>  DNA
<213>  Homo sapiens

<400>  416
taaatatgac agtcttggat ttatttgtaa gtgtttaaaa tgtccaatat tcagaagttg     60
tcaggtgttc ttaccacctc cccactccct caaccagtcc ctgcttccag ggtccaggag    120
aagcagtgtt caggcagagt agtctcttgc cagagcagaa caaggagtcc tggtggccaa    180
gtggcaagta tgcaggctgg gctggtccct ggtgggactt ctcctgggct tttcctccca    240
tcatcttcct tcacgtgtct ctcagccctg gcagagtttg gagctgatac cctgggtcat    300
ggccacagtc cagttcactg ggtggatgtg tccctggctt ctgtccatgc caggct       356

<210>  417
<211>  445
<212>  DNA
```

<213> Homo sapiens

<400> 417
tttttttttt gtttacttat ttatttattt tcaccaccaa cattattagc catgccttc   60
tgctaatcga ttttagcaag tcgaggtaaa acacatgcaa cattttctgg caaaagctta   120
atgtcaaaca atatgtgatc catactgtgt gtcgtccttg ggggtttatt tgactttgtc   180
acaatgacag ccaacagtga gactgataag cctgtaaaaa taaaaaaata agactaatca   240
aatagacatg gcattttaat ctcaaagtgc aaaatcatct aactgaaaat gacggcattg   300
aaaaattcca gtggttaaaa atgaatcaaa acttcattac gcaggcagtg gaagtgtgtt   360
gaaagattta ccaggggtgt caagttttag acactcagaa aggcaccatt ctagccatct   420
tgattggata acatggtata tactt   445

<210> 418
<211> 456
<212> DNA
<213> Homo sapiens

<400> 418
ttttgggcca cactgagtga attttaatgc aggatggaag cacacagatg ggtgatcagg   60
tctctcttta ctgaaacaca gaacatgtgc caaggtgagt ccaaggacac ctctgggaac   120
aggtgaagcc cctccccaca catacactcc ggtggatgtg agcgagggtc ctgttgccac   180
atctggggtc aggggcttgg acatgctgcc cttcatggga accttctggg tacctctcag   240
cacagtaacg cagctgcagt ctgtcggtgg gggcccaggc taggggcagc accctctttt   300
ggcatacggg acatgcctgg ctgcagctga tgtccgttag cctctcctga cacgcagtaa   360
ggagacctgg aagtgaggcg cgtgggcgtg gagttcccgg tggagcttgc tgcatcagcc   420
tttcttgcca ctctggggtc agtgaagtct ttcccg   456

<210> 419
<211> 206
<212> DNA
<213> Homo sapiens

<400> 419
gctgccacca ccatgaaaga gtggccacca catctttatt gcatactcag gtgaataact   60
tattatacaa tgaacactcc tccattagga gaccatgccc acttacagaa tgcagccgta   120
aatgcggtaa atctatttac agaggttggg gtgcaagatg agagaagtat cagccccagg   180
aatttgaagt gaaaatgatc tacaaa   206

<210> 420
<211> 668
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 420
accacctgac tcagacttct ttgtcgttgt tttatttaaa atgttattgt ctctgattag   60
aaaatacagt catgagggct aaaaactgaa atgatgtgaa aaggcatcca ttaagcagtg   120
ttgccccacc acccttcca tcagtcttgt ctcatgggga tggggaaaat gaagacagaa   180

```
cgctttgcct tgctttgcaa tccctccttt gaaggccttc tgtcccagga agccaatgtt      240
catttgatgt ggaagaggga cctgtgttta accagaagct gtcctccctc atccctttcc      300
catggcttac acgcagaagg gagaggagat gaccagagga gaaatcaggg gaagaaaagg      360
caacaggggа ggcaaaggga aaggagagga atgcttaaaa tatacagtga aatttgagta      420
ggattctcta ctcaaagact tctctgggaa gtgtccagaa ttgaccacac aggtgctgac      480
ggtagaaaga acacagaccc anaaccctga tctagttgca ttaactccat tagccctgag      540
ttccctgtaa aatgaagact gtngaggacc actagaggat tctgtgactt ctcaactcta      600
aaattttgga ctggacctcg tgcgaatctg gctcgaggca aattcctatg tggcgatnaa      660
tcgnacag                                                               668

<210>   421
<211>   242
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   421
cttacacagg ntatttacaa tcataaaagc gancagtcct ggtaccagag tgtgagggca       60
agaggtctgt ccatcctccc tctggcagtc gggccctcgt gtccttttgc ctcagggacg      120
gaagcttttg caggagctga gttgttcaaa ggagcctgcg ataagagagt tgtctagtga      180
ggaaacctcg agatgtcagg attggcacga actccacggc gctggctttg ggggatcgct      240
gc                                                                     242

<210>   422
<211>   371
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   422
tcagccaatc acaaaaaaca gactttattg aagtatttag cactaaaccc cacacaattc       60
cagctctgta gctgaggaca cagccacttg gcaatggcac caggtgttat acaagaccaa      120
taagttaatg taaaggacgc ttaggtgtgg agggccagtg ctcagccgtc tcctggctca      180
gaacaaggca ctctgggctc cagttaggac actgagaggc cagggaaacc aacatgccct      240
ggagaaaggg gcttagagac aaaccggaaa agcacagcat ccaagcaggg tattcacgca      300
tgggggggcag agtaggccca aaagttgggg gttgcctgat gcggtaagag cacagttgag      360
agnaattncc a                                                           371

<210>   423
<211>   638
<212>   DNA
<213>   Homo sapiens

<220>
```

<221> misc_feature
<223> n=a,t,g or c

<400> 423
tggggtgcgc ggcctggcta ctctggctgc aggccgaggg ttgaacgttt attcatcaca   60
attaacagcc tatacaagca tctctagaac agaggctgtg ggtccaaacg ggtccctgca   120
gctccaaccc tctggcctct ccgggcactg cctcacagcc gatggagcat ggctgggcag   180
gcagacagga cacaggctca gtcacagggt gtcaggggga agctcttcta gctggaatga   240
ttggaagttg gcccagcggc tggggctggt ctgtcccttc ccctcctggg aagttccacc   300
tccactgtag ttaaggccac caggatgaaa gcagggttag gtccagggac ccagtagagc   360
cttgggatgc atgaggtggg ggtaaatggg cttggcagag aaatggagat tgggaagggg   420
cctgattaga atagaaactg atgatgttgg ttcagcacct gcaagatgag gaaggtgact   480
gcagcaacct tagagcttcc caaaggaagc aagtgatgcc cccatctgcc aagagggtac   540
tccttcagcc cttgcacaag agccagacca agtgtccagg aactccacag acagaagcct   600
gccgagttan gggatgtggt taagaaaatc tcccgggc   638

<210> 424
<211> 292
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 424
ggatttacca acacgtaggc ttttatttct tcccattaca tctgtttagc cacagaaagc   60
attgggccat actcactgca gaagataaga cttcctcaga atcttattcg tttagtgcac   120
tcaatttac ttcactgtct catcacttga gagactggtt aaggcaagaa acccatttct   180
taacattttt tttattttca aacatttgaa aagcaacacc aaaacgtatg cagttaattc   240
ctcaattctt tcccttagna tagcactttt taaattacaa aaccacactt ac   292

<210> 425
<211> 346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 425
tttttttttt cttttaggca ctttttattt tccaaaaaaa aattgtcgtt aatatataaa   60
catctcattc tctcaaaaaa ttctacaact atacagctgt ttgctccatt atttgcatag   120
gaaatgacca caatacaaaa ataagaggga aaaagaagca aaacagcaac cgatttctgc   180
ttttcatgta ggtgtgtttc cacgtataaa cattttgaag cctcttacaa aattatttac   240
atcgtttgtc atcnatttac atcttttaag agcaactttt ctaacaaaca aaactataat   300
ttatcaagtt atgnaaattg tcttctaaaa aaacttacta tattac   346

<210> 426

<211> 469
<212> DNA
<213> Homo sapiens

<400> 426
```
tttttttttt tttaaaaaca gaagcgcgac catttctta  ttaaattata caaaagggtt    60
ggggagggg  gcagctgtgg ggctcggcac accccgggcc ccaccccggc ctggcgctgt   120
ctgagaagag gggatctgag ggagatccag ggatcaggca ggataggga  ggggcaggac   180
atgaggctgg gggatgcaga ggttaggtgg gagaggctac cggagtaaga atgaggctgg   240
taggggaggg agaaagagag caaagagaga gaggagcaat tgggggccag ctggagagct   300
cagatggagc aggtcaggag gtggaacaat ggcagagtga gggtggaggg cgcagtgtct   360
ggagaggcgg aaatgagaag gctggggaga aagaagaggg tggcagctct ggtgcagggc   420
ccagagcagg gagccaggtg aagagtggct ggactttgct gcccccacc              469
```

<210> 427
<211> 4003
<212> DNA
<213> Homo sapiens

<400> 427
```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat    60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc   120
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg   180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct   240
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc   300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat   360
ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa   420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca   480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat   540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat   600
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg   660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa   720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga   780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca   840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga   900
actagtggag tggaagcgga gacagcagag cgcctgtatt ggggggccgc ccaatgcttg   960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca  1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac  1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag  1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt  1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa  1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa  1320
aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc  1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc  1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt  1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgcccgt  1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa  1620
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg  1680
ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcaccaaaa gaggtctcaa  1740
```

```
tgtggaccag ctgaacatgt tgggagagaa gcttcttggt cctaacgcca gccccgatgg  1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttcccttctg  1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga  1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca  1980
gccggggacc ttcctgctgc ggttcagtga gagctcccgg gaaggggcca tcacattcac  2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac  2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc  2160
tgctgagaat attcctgaga atcccctgaa gtatctgtat ccaaatattg acaaagacca  2220
tgcctttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg  2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc  2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc  2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt  2460
ttttcatctt ctctggcgac agtttttcctt ctcatctgtg attccctcct gctactctgt  2520
tccttacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct  2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat  2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa  2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag  2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg  2820
gataaatcag tggttatttta gggaactgct tgacgtagga acggtaaatt tctgtgggag  2880
aattcttaca tgttttcttt gctttaagtg taactggcag tttttccattg gtttacctgt  2940
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat  3000
catggatctg gtaggggggaa aatgtgtatt ttattacatc tttcacattg gctatttaaa  3060
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt  3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg  3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt  3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat  3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt cctttttgtt  3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa  3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt  3480
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt  3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca cttttttgag tggatgatgt  3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga  3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat  3720
cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt  3780
ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc  3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc  3900
tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga  3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                     4003
```

<210> 428
<211> 4003
<212> DNA
<213> Homo sapiens

<400> 428
```
attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat   60
gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctcgacagtc  120
ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttgttgg  180
ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct  240
```

279

```
ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc    300
acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat    360
ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa    420
taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca    480
ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaag aaaggaaaat    540
tctggaaaac gcccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat    600
gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg    660
tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa    720
aaccttgcag aacagagaac acgagaccaa tggtgtggca aagagtgatc agaaacaaga    780
acagctgtta ctcaagaaga tgtatttaat gcttgacaat aagagaaagg aagtagttca    840
caaaataata gagttgctga atgtcactga acttacccag aatgccctga ttaatgatga    900
actagtggag tggaagcgga gacagcagag cgcctgtatt gggggggccgc ccaatgcttg    960
cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca   1020
gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac   1080
aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag   1140
ctcgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt   1200
gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa   1260
ttataatttg aaagtcaaag tcttatttga taaagatgtg aatgagagaa atacagtaaa   1320
aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc   1380
caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc   1440
tggcaccaga acgaatgagg gtcctctcat cgttactgaa gagcttcact cccttagttt   1500
tgaaacccaa ttgtgccagc ctggtttggt aattgacctc gagacgacct ctctgcccgt   1560
tgtggtgatc tccaacgtca gccagctccc gagcggttgg gcctccatcc tttggtacaa   1620
catgctggtg gcggaaccca ggaatctgtc cttcttcctg actccaccat gtgcacgatg   1680
ggctcagctt tcagaagtgc tgagttggca gtttttcttct gtcaccaaaa gaggtctcaa   1740
tgtggaccag ctgaacatgt gggagagaa gcttcttggt cctaacgcca gccccgatgg   1800
tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt ttcccttctg   1860
gctttggatt gaaagcatcc tagaactcat taaaaaacac ctgctccctc tctggaatga   1920
tgggtgcatc atgggcttca tcagcaagga gcgagagcgt gccctgttga aggaccagca   1980
gccgggggacc ttcctgctgc ggttcagtga gagctcccgg gaaggggcca tcacattcac   2040
atgggtggag cggtcccaga acggaggcga acctgacttc catgcggttg aaccctacac   2100
gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc   2160
tgctgagaat attcctgaga atccccctgaa gtatctgtat ccaaatattg acaaagacca   2220
tgccttttgga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg   2280
ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttcacccttc   2340
tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc   2400
tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt   2460
ttttcatctt ctctggcgac agttttcctt ctcatctgtg attccctcct gctactctgt   2520
tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct   2580
gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat   2640
gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa   2700
aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag   2760
ttaagcaaca tctagcaaat gttatgcata aagtcagtgc ccaactgtta taggttgttg   2820
gataaatcag tggttatta gggaactgct tgacgtagga acggtaaatt tctgtgggag   2880
aattcttaca tgttttcttt gctttaagtg taactggcag ttttccattg gtttacctgt   2940
gaaatagttc aaagccaagt ttatatacaa ttatatcagt cctctttcaa aggtagccat   3000
catggatctg gtagggggaa aatgtgtatt ttattacatc tttcacattg gctatttaaa   3060
```

280

```
gacaaagaca aattctgttt cttgagaaga gaatattagc tttactgttt gttatggctt      3120
aatgacacta gctaatatca atagaaggat gtacatttcc aaattcacaa gttgtgtttg      3180
atatccaaag ctgaatacat tctgctttca tcttggtcac atacaattat ttttacagtt      3240
ctcccaaggg agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat      3300
gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt ccttttttgtt     3360
attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa      3420
ctgacaactt gaataataca ccagagataa tatgagaatc agatcatttc aaaactcatt      3480
tcctatgtaa ctgcattgag aactgcatat gtttcgctga tatatgtgtt tttcacattt      3540
gcgaatggtt ccattctctc tcctgtactt tttccagaca cttttttgag tggatgatgt      3600
ttcgtgaagt atactgtatt tttacctttt tccttcctta tcactgacac aaaaagtaga      3660
ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat      3720
cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttcttt      3780
ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc      3840
attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc      3900
tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga      3960
ctaaaaaaca aagaagacaa cattaaaaac aatattgttt cta                        4003

<210>   429
<211>   419
<212>   DNA
<213>   Homo sapiens

<400>   429
gaattacaaa ttgataattt attaacctgt gcagcaacaa ataagatttt tcaaaactca        60
acaaagtgct caaagttgac attacttgct tcaaagttag tttaaggcaa gtaaatacta       120
actactgcga ggtggaaaat tgcatgaaga ccctgcaacg tcattcactg aggatcttct       180
catcctttc tttttatct cgtgcccctt gtctatttca aatcatcagg cacattcatt        240
taataatttc ccaagcaatt tttaaaaaga cgtttgggag tgtgtaaaag tttagtgact       300
ttcacactaa aacttgttgt cagaggtaca tggtgactat ctccacacag gcagagctgg       360
gacccaactt actaaacctt cacgtgagaa tcttctattt ttaaggctga aggatggca       419

<210>   430
<211>   385
<212>   DNA
<213>   Homo sapiens

<400>   430
aaatgaaatc tatgaatttt tttattaagg atttgataag ctgatataat gaaaacatgt        60
aaatgaaaaa catttacact gactgtacga ctagtgtgct aagccattac aatagtttac       120
tgacataact ggcaagagta acttggaaaa taacttaatc cagcagaaca aaaacatcct       180
cagaaaaaca tcctcagtag tactgaatat atctctctca tatatctatc tatctatcta       240
tctatatata tatatatata tagctttgca caatcaggga gcaaggcacc ataatgaaat       300
gagcatacat ttatgcagaa gaaaataata gcaacaaagc tgcgagaaaa attgtaactt       360
catcttcact gagctgtgca taatc                                            385

<210>   431
<211>   399
<212>   DNA
<213>   Homo sapiens
```

281

<400> 431

```
gaatacagag cgtctgtttg ggatgacgaa aaagttctag aaatggatag tgtcgatggt      60
tgcacaacat agcaaatata ctaaaagcca ctgaatagaa catttcaaaa gcatgaattt     120
tatctcaata tttagaagga aaaataaata ttcttagaag aaacaatatt accatcataa     180
atggaaaacc ggtaataata aaatacatac ataaatatta agatttacaa tgtctattag     240
caagtcaccc taactcatct tacagaccac cagtaggaca attacccctt tgggtgacat     300
gaaaaaggct gccaggggc ttatgtccag tgcccagggt ccagcatggc aacatatttt     360
gtaaaaagtt ccagcaggct gtggacagca ggaataggc                           399
```

<210> 432
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 432

```
ttttttttt ttttaagagg agaaagtaag tttattttc tttgcattac atcactgagt      60
tcccataggt atgcagaggc cacctaacaa aactccatct ccctgcccaa agaatgccca     120
gtgggagcgt ataactgtgt aagtaaatgg tttcattgta aataaaagaa ccttagaggc     180
ggacttgtgc tgtggagagt acaatggcct ggagcagnga gacagatgct agacccaggc     240
ctgctgtgtg acctggatat atcactggct tctctgggcc acacactccc cagatatacc     300
aacaacaggg caggatcaga gggaaggatc tgtctgaggt cccaggagct caccctttcag    360
ctgcaggcgg atctccctcc ccagctgttt gatctcatcg cgcaggttct gcagctcctg     420
cttcatgcc                                                            429
```

<210> 433
<211> 193
<212> DNA
<213> Homo sapiens

<400> 433

```
tgttctactt ttaaagatat ttaatgatgt ttttcaaatc agtacaaaaa tttaaataca     60
aaaatgattt gctattgaca agtctcaaat ctgtcatggg aactcaaaca agttaccagt    120
ctgttcaccg ttcattgtat tctataaaat atttgataac agtcacccac tacagacatt    180
cttttcccct gtg                                                       193
```

<210> 434
<211> 278
<212> DNA
<213> Homo sapiens

<400> 434

```
cactggaagc ctgaggggct gttgctgagc ctcagcccca gaaatacaaa aagtctttat     60
ttcacagaaa ttagggccat ttccatagtt atggggaagg acgtgtgagc aggatgggag    120
gtgctcagct gactgtcctc tccagaaggc tcttctgagc tgagcaggag accccagggc    180
cacagccgag ccccaaccta gacacggtct gagctccaac cttggctggc tatacttcaa    240
gggcgggtag ggccggcatg gggctggagg gagtcagc                           278
```

282

<210> 435
<211> 330
<212> DNA
<213> Homo sapiens

<400> 435
gaacgctggt gatggttcat gcaaaagatt actatgcaag gagcaaaatc taagactgct   60
gtttttccca ataaattcaa ttgttttcca caatgtagaa ttttaatctt caaattaagt   120
gtagctagga cagtgagtga aactaatcac tgcttgactt ttattttcat ctaggaaaaa   180
taacatctga tgtcaccaca ttaaaatgcc ttcctgctta atatcagaga aaaaaataca   240
tgttgccagt ttagactcag cgcagtttat catttggtcc aaatttcata ttcaaactac   300
aaaaaatatt ttttaataaa gaaaacatat   330

<210> 436
<211> 433
<212> DNA
<213> Homo sapiens

<400> 436
cttttgttgt ggctgctgtt ctattgatgg caggtaatca tcactcttca ctagctgagc   60
attcggtcca ctaacctgag tcatatccgg cactggtttc tctagaaagg gctccgacgg   120
ggaatgctga tgcacaggca ctttctgcgg ggtgttctgg ggtgatgggt ggagctgtcc   180
caaggctggt gatgagggtg tggaggtgaa gactggtggt gcaagcccgg gtgaggctgc   240
agtggaggac aggttggcaa ctgctgaaaa gatggctgtt gaccaggatg ttgttggcca   300
ggtatcagtc gttcctggat tgcttgtggg tctccaaggc caacaccagg acaaccattt   360
ggcctcatgt gcccagtcaa ttcccttggt gccgaggaca tgcctataaa tggacgagac   420
tgctgcatgt ttc   433

<210> 437
<211> 358
<212> DNA
<213> Homo sapiens

<400> 437
ttttgttttt tttttttttt tcacatacca acaaaggact ttattagtgc aaattcattt   60
gaatatttac aagcatatat gatagtgcat ttcgatgcaa tctaagaagg aatacattac   120
atgggaaact gtcttaatat tttcattata ccgtgcagat ttctagaaaa atcaacaagc   180
aatagtcctg tctgaagcac agaatttaaa ataaagttta cctccattac agacaagaaa   240
acaaaaaatt atcggcctta taaattttag tatgagtact taaattaggt acttcacaga   300
tttattttca ttaattaatg aacgaaagta actggtattt ataagaaata taacattg   358

<210> 438
<211> 249
<212> DNA
<213> Homo sapiens

<400> 438
catggaaaat actgtatttg tatacacagg aaggatagct gcaagcccct cacagaggaa   60
actccacccc aaagaaaaat cttagcagca aattcctatc tccctcagca ctatcagcac   120
agcccaggcc agaaggttgg gcttcttgtc tctgggaacc catcataccc ttcccgccaa   180
agaattctaa ataaggcagg aaaaaaaaat attgtgagtc cagtggggag ctggggtgcc   240

283

```
tggtcattc                                                              249

<210>   439
<211>   322
<212>   DNA
<213>   Homo sapiens

<400>   439
aatgtcctag cttggtttgg tcttgaaaag attcataatc actccaaatg aaatgctcct      60
cccttggcca ccaatgtgaa gggagggtag aaacctgagg ctagacttct gacacaagaa     120
gaatctgtcg agagcacagt ctcccagtca ataagaagga aggagagagg gggatgagct     180
cgcacccttg agaagaacct tcatgagcca attcccaaag catcaactcc gcatggatac     240
tttgcacaca catcagccgt gtctaatgga cacacacacg tgcatacaca cgtgagcaca     300
cgccgggacc acagaccctt at                                              322

<210>   440
<211>   297
<212>   DNA
<213>   Homo sapiens

<400>   440
ccttcttaaa aatattacat gttttattat cctgtcccca gagggtggtt tatccagaaa      60
ccaagaaaaa aaatcaatca gaataaactc aaaaaaaaaa ggtaggggga gcaaaaccat     120
caaccaccag gcagccaggc catcagccca cctccacctc tggagggtcc ccagagaccc     180
acgcccgacg cagacccgga ggagcatcag caaggggccc gggcagagaa tcggctatgt     240
cttcattatg agagcaggag agacggcaga gatatgttgc taggtgaata tatattt       297

<210>   441
<211>   478
<212>   DNA
<213>   Homo sapiens

<400>   441
ttttcaattt ttaatttttt tatttagaaa taataaaata agacataata tataaaaata      60
tgtacaatcc atggtttgtg cagtacaata ggaagacttt agatacaaaa agacagcaaa     120
tgggaaaata ataactatca cgattgtcaa tggctaggat tgttcaactt gccagagccc     180
agagcggaaa cccaaaatta ccagaaaaga gattctactt tgctgagggt tggggatggg     240
caggtagcta tgccacactt ttttttttcc caccttaaca ttattagaca cagagtgaaa     300
aagaactcac tctacttctc aggacaagct tttgctttta ctgagtggtt tattataaaa     360
tatgaagtga catttattaa ttgtaaggga aatatgattt acgggacaga actcatcaaa     420
taaacagagt tgagatagga gtgtactggt aagaaaggaa gtaaagagaa gaaagatg      478

<210>   442
<211>   302
<212>   DNA
<213>   Homo sapiens

<400>   442
tttttttttt tagtgcttga tatttattga aaataatgcc aatgcttttt ccaggtagta      60
ttgaggagct gggctgagtg cttgtttgtt ttgtttttaa gtactatttg tccaaatgca     120
cacatctgtg ggactgctgc aattttgaaa gaaaaatgac agctgtgtaa aaccagtgca     180
taggaaaaaa gaagtgtcaa caatttggct gccaggcaca ccgcgccccct gcagcaatct     240
```

284

```
ggtggggcag gggaggacac tcggagtagg tagaaaacta accaggctga acggcccctt      300
ca                                                                     302


<210>  443
<211>  172
<212>  DNA
<213>  Homo sapiens


<400>  443
gaattatcaa actttattgg cttgttaaaa atgattgaat tcagcaagta catttatgat       60
ctatctacat tgttaaaaca gcactaaaaa taaaattttt taaaatgatt atccattatt      120
tacagaaaat gtggaaaaga tggcttttaa acccagaaca ttataggaaa aa             172


<210>  444
<211>  267
<212>  DNA
<213>  Homo sapiens


<400>  444
tttttttttt tttttttgtta cacagctctt taataatagt ggccatagct gtaataacaa      60
tgacaacagt aggtaacggt agtcatacca acagtagggc agtgcatttt atattacaac      120
tggtttcttg ctctagtagg cttgggggatg ggtgaagacg gacagggctg gcgcagaccc     180
tttccttctc ctctccagcc cacagtgatc tgggctttta caagacagcc tgcttccatt      240
cagtagtgtg ggaaagttcc ttcttgg                                         267


<210>  445
<211>  418
<212>  DNA
<213>  Homo sapiens


<400>  445
ttttcctaaa atattttta ttagaaatat agctttagta acaaataacc atttgatagt        60
tacataaaca tataacagat atgctctaca tgtgtaattt aagtacatta atatgagcat      120
tctttatggg tatacatcat ataaaaataa atcatttttca tactttttta aatgttggca     180
ctgtaagtca caagaatgag ctactcagtc agtctccta tttcaggaag cctttgcatg       240
gaaggacaga gtctctgtga agttctctgg gaagtaaagg aggcgctgat agggactgaa      300
ggctgcctta gctcagaaga gctcaaggca acaggcaat ttggggagag tcacaggcac       360
aggaagggcg tagatagaag atacgtaaaa tcaaatcagg aagttttgtt atattgtt        418


<210>  446
<211>  586
<212>  DNA
<213>  Homo sapiens


<400>  446
tttttttttt tttttttttt tttttttttt tttttttttt tttttgaag agcacaattg        60
catttatttt atccaatatg cagataagtc taagaaacta ggaacagtct gtatacttgg      120
gtgtatttttc ttcttaactc ttctttggct aagtcagcaa gcccatggtt actagcgtcc     180
caagcaaacc tgtcaacgtg aaacacgtgt gcccagatag aagacgggta gtacctgaag      240
tggttccact tcctttattt ggggttgttt catgaaaatg cttggttgtc ctggaaacag      300
gtgtactccg tgttgcttga gcatttggtg tggtggtttt tgtggtggtt ttctgaaaag      360
```

285

ttggtgagac ttctgtagtt ggaacattta ctgtggtagg tttctgaact gttggtggga   420
ccttgggagt taaagatttt cctctgcatt caggtggtgg ggcaatccaa tctccgtcat   480
cattattcac agtacaataa atagaggtgc ctccaatcag tgggaatcct ttattacatg   540
cgaacgttaa agactgtcaa tatccaaaaa ggtccagtcc ccttga   586

<210>   447
<211>   362
<212>   DNA
<213>   Homo sapiens

<400>   447
tttttttta caagatgttg catcacttta ttttaattgc atgatttatc agaacaacta   60
ttaacatacg aagtaccatt cagttcagct gcaggtatag gcagtgacaa gtatctaatt   120
cttagaagaa tcacttactc ccacaatctg tccagacaca ttagtctaag gacaagttta   180
taaatagcaa acgtgatttt cacattgcag tgttctcaag aatgtatata caagtgtgta   240
gtcctgttga tgggatgttt ccccgagttc tttctattga tgcgttcatg ctcttgaccc   300
tggtagagac agttctttct ttccacagag cagattttct tttgtcatcc accatttaca   360
at   362

<210>   448
<211>   257
<212>   DNA
<213>   Homo sapiens

<400>   448
tttttttttt tttttttttt tttttcagc aacctcggct gtatttattg atacaaggaa   60
gatcacccga gagtcaggga cgtggcggcg aggggccctg gaaatctcca gataccaaag   120
ctggaagggc gtggagtctt ctccagttct cctagtttac agatgttgtg acctaggctt   180
acaatgggcc tggggtctga aagcgggacg tgggctgcgg gggtcaaaga gccggtttgg   240
tggaggtcag cgccaca   257

<210>   449
<211>   454
<212>   DNA
<213>   Homo sapiens

<400>   449
tcacggctga taggctttta ttacagactg ggggcggtaa cggctggaca gagaacggaa   60
aaggaacatc tgagaccagg ctcaaagcta ggggttaca caacctccaa taacacaagg   120
tgagtgcagc acttctagac acacacag acacacatca cttactcata aacggcacag   180
cctacggtac aagaaaaagg gcaaggtagg taagggcacc caacaccctc ctgcctgcag   240
ggggccacag ggttaatgtg ccttcctgca cgcaggctta agagggataa acaaggagag   300
ggctgccctt ggagaaggcc tgcggataat agtgactgag gcacaggtcc atgcagggga   360
aggaagcaca gttcacagag tggcaagctc agtgccagcc agtgcaagca acaggcagtt   420
ctttgatcct ggcttagtca cagcaaacat ttac   454

<210>   450
<211>   305
<212>   DNA
<213>   Homo sapiens

286

<400> 450
```
tctccacaaa ccactttat tacccagtgg gtgggctggg ctgtgatgtt ggagaacctt    60
ggggtgggg gctgcggaat gcagctgagc ctctcctggc tctgtctgct ggtctaggcc   120
agggtggggc tgatcaaggg cagagagctc aatcttgggg gaagaggaag agaggacaga   180
gaggccaaac aggctcttcc cctcctcttc acccatgcca cagcattaaa taaacaaaaa   240
gcaactcttt acagcacaaa ctacacaggg aagtccttcc tcccagccct gggcgcacag   300
catgg                                                              305
```

<210> 451
<211> 392
<212> DNA
<213> Homo sapiens

<400> 451
```
ttttgaacgt acacaagctt tattgggcaa cagcaacgag ccacgctggc aaacaatgaa    60
agtagagtcg ctcagaaaca cgaaagatca tatgtgtgtc atcacagcat cgagaattta   120
aatcatctgg aagttcctgc taaattaaag catactgtgc cagagctccc ctctaatcaa   180
aaaacgctgt cctggtgaaa atttgcaatg aggattacag agagagagat caaccaatga   240
ggaaatcaca gactcttaca tgagtttaca gttaacccca ctgcaacaaa ataataaatt   300
agccataatt tgtttttttt gcaaatacca tgcccccac ctgacccac aaagacaaca     360
gtcactgaca tggcccagct atattaacag ac                                 392
```

<210> 452
<211> 194
<212> DNA
<213> Homo sapiens

<400> 452
```
aaagaggcac gatctgattt atcagtttct aggaaacacc ctctgggagg aaggcaggca    60
gcgccgccgg agaccttaca accgcccgct aaccggggag gggggccggt agggcgcctc   120
gggtctcaag gcgccgggag ggtctgcggg ccctgaaggt ccctgggtcc gagccacaag   180
tcggggcaga accg                                                     194
```

<210> 453
<211> 294
<212> DNA
<213> Homo sapiens

<400> 453
```
tccttttgg gtctggaaca ctttaaaata gttcttaaac aatccatagc ctttctatgg     60
ctccatggta aacataaaa gctttaaaaa tcttttttgt accaaatggc tgattctcaa    120
gaacctttgc catactgagc tcctgcctgg ctcacagctt gaatttcatc tctctttcag   180
ggtcatgatt tctgctatta gctggcctct ttgtaaatca acacctttgg gaaagatcgg   240
aatctaagta atgacagaaa ctgtcattta gccgcgaaca agaaaatggg aatt         294
```

<210> 454
<211> 407
<212> DNA
<213> Homo sapiens

<400> 454
```
ttttttggtt gttcatttgc catttattgt tctgcaaaga cacctcatga gcaccaggtg    60
```

287

```
gcgatgtcct ttcacggagc aacaccaaag acttcaaaaa cattccagtt acaaacagaa     120
caattcactt aggacattca cctgcctatc ccagaacccc caatctaatg ccggggacca     180
cagagaagga aaggggtcag gggtcctttc ttgtaccagt gagccttccc ccagttttct     240
catgcacaca acagtgcaat accaagacga gtactttga ccaagtataa aaccacagag     300
aagaccaaaa tgtacaaaaa tgggaagaga atgaaaacac aaaggcacac gcagccacaa     360
atacacaatt aacctttttag gggatgagca tctgacgagg tttgtct                 407
```

<210>   455
<211>   174
<212>   DNA
<213>   Homo sapiens

<400>   455
```
ttttttttttt tttttttttt ttttttcacc atttgggacg tctttattat ggatccgtcc      60
actcttccag gagcagtagc ccttctaaga aaggggtggg aagaaaacca gcctacccctt     120
caagctgact taggatgcaa tggtacagac accagccttg ggggagggtt ctcc            174
```

<210>   456
<211>   418
<212>   DNA
<213>   Homo sapiens

<400>   456
```
ttaagacgga gtctcgctct gttgcccagg ctggagtgca gtggtgtact cttggctcac      60
tgcaacctcc acctcccggg ttcaagtgac tctcccgcct cagcctcccg agtagctggg     120
attagaggcg tgcaccacca tgcccggcta attttgtatt tctaccagag gcggagtttc     180
tccatgtagg tcaggctggt ctcgaaatcc tgacctcagg ttatctgccc gtctccgcct     240
cccaaagtgc tggggttaca ggcgtgacac gccatgccca gcctaaaagg acattcttaa     300
ggcagaaaga aggggggcagg caagggtggt ctcagccccc agatggaagt cagagtgggc     360
tgcaaaagat gcagatgggc aggcagggag acaggtaaac agacagagag acaaggtg       418
```

<210>   457
<211>   326
<212>   DNA
<213>   Homo sapiens

<400>   457
```
ttttcgtggt ttcgtctatt tattaaaaaa tatttgagaa caaaacctct gcctctttga      60
gtcttgctct ggcatcccca gcatctctga ttctccctgg tgcccccagc tcaggaagaa     120
ggtggtagtg gggagagagg gtcagggggg cttggcaggg atgcaggcac catgactttt     180
gtgaccagtt cctagagacg catgggtgta gcctcaggag gaaagcgaga ggagctttac     240
catgggaacg aaggaaaggg acaacattgg gaggcaaacg ttgggagact agtccagaaa     300
cttgcagttg aggatacaac agggtc                                         326
```

<210>   458
<211>   388
<212>   DNA
<213>   Homo sapiens

<400>   458
```
gttagctagt atcttttatt gtcagaactt ctgtgagcca acaaacagtt ttgcatggtt      60
gtacacaaag ggacaaggca aatttctttt ttcgtgtggg tagacttagt tggcccaagt     120
```

```
ccttaaaact tttccatata aaaataaaaa gtccaagacc agattatttt tcttctggtc    180
ataaatgctg atttatttac aggtgccttg ttcagaccac cattataaac ttgggataaa    240
atatgtgtgt attaaagcct cagcatttaa tgtcagggtc ctttgaagat tcactcaagt    300
gttaagacgt ttctggaatg cagcgtctct cccccatagt caacatggtt attatatctg    360
taatctatcc agaatgatag aagctaac                                       388

<210>    459
<211>    411
<212>    DNA
<213>    Homo sapiens


<400>    459
tttttttttt ttttttttca cagtacaact caacacttta ttccattgtg attggtatac     60
atgtaagatt gagacatcaa gagactaaaa atcagtgcag aacttctctg aactaaaggg    120
ccgtgaaagg catgattggt tttggcacac agagtggata accatacatt ggctggaatg    180
aggtggtcag gaaaataaaa tgcacaaatc taacaccatg ttgaaatcat gtctgagttc    240
tggagaaagt taaagtgtaa ataattacaa agactgacat gcaactctta ccttacatta    300
ttcatctaca gactattttt ctcccttaga gatgaggaga tggccttagt aatctgttca    360
gagtagctga aaagaccaat caatacacat tagaaagatc tgcctgattt c             411

<210>    460
<211>    206
<212>    DNA
<213>    Homo sapiens


<220>
<221>    misc_feature
<223>    n=a,t,g or c


<400>    460
aatggcatta aagttttatt agtatttgyc camatytata cagttattta cagggcatga     60
aantggaaac agcacacaha tacacttgag gtataagyya gagcacagta tgtcatgttt    120
caataaatat aattcaaaat ttgtaaacta ggtgaccaga tacatgagtc ttattttttrg    180
taaaaccata taaaatattt atytca                                         206

<210>    461
<211>    280
<212>    DNA
<213>    Homo sapiens


<400>    461
gtataaaaat aattttattt actactgtaa ataaagtagt gcaaagagta gtttggaccc     60
acaatattgc attactgatt tattcactac cttagcagca tgtagtatac agacattctg    120
ctcttcctct tcctctctaa cacacacaca cacacacaca cacacacaca cacatatccc    180
tgtacagact cacgcaggca tgaggggtag ggatgaaact ataagctaga ggcttacttg    240
ctgcatattc cgttgctgcc agtctattct aacgtgtaat                          280

<210>    462
<211>    266
<212>    DNA
```

<400> 462
aatcaaaacc atctttatta tttaaagagc atcccgtcat caggggcacc tagacaggag   60
tcccagacag cagaacaata tttacatggg ggtcaggagg tgaggttggg tggtctcggg   120
gctgagtggg cccgccactn tggaagagag gaccctggag ggagggtgtc cttggacctg   180
tggaccgggc ccaagaagaa aaacgtccca tcctaggccc agcgtggatc ccaccaccgg   240
gntcacctcg ggccctggag gctgcg   266

<210> 463
<211> 263
<212> DNA

<400> 463
gacaatgtca taggcatcgt tcatcgacag attgagcttc tgcataaggt aagccacagt   60
cacagtgact gancggctaa tgccagccaa gcaatgtacc aagacaccac agttcttgcc   120
ccgggcttca tctatgaaag aaatggcctc agggaaaaac tgggacaggt tttggctcca   180
gtgatccgag atggggattt gcttgtattt aaactctcct gcgttctcaa agagattcgg   240
caaattgggg gtgacgttca aga   263

<210> 464
<211> 292
<212> DNA
<213> Homo sapiens

<400> 464
tttttaatga aaatcgcttt tattttatcg cttttgtttt gtatttttgc aacagaaacc   60
ccctgctcca gagtcagact gtagctgaac tgttcagact ggagaatgga gcaggctgtg   120
ggccgccacc ccgtggtccc ctctcctggg caagcgccca cccccaggga acaaggtcca   180
ggcaggccag ctcactgcac gcactggcac caccacttag ccatacaggt catcatcatt   240
gtcttctgtg tatacactgc cactgtgccg gacctccact gccctgactg gg   292

<210> 465
<211> 353
<212> DNA

<400> 465

```
tttttttttt tttttttttt gcttcacaaa tgtcaatttt attgacacta gtgcacaact      60
aaatacaata attgcaaagg aagtggaacg tgttcaaaca gaaatggtga caatgagtta     120
gaactgcagt tntttcaagg tactacacta ttatttaaaa aaaaaatcac aaanagaaaa     180
atgttatcac tacaagtagg gatttaggaa gngagnaaat tctgggcagt ctgtctagna     240
gggttaaaac atttcatggc atttgtgagt tgctgttgga gagttgtttt ttatttgtcc     300
accgtaatct gggcaacatc cgggggctta ccttcagctc tcggcactgt gcg           353
```

<210> 466
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 466
```
acaatctgct tcctctaata tatccccagt ctaaggcatt taaaattaaa cagctcttca      60
acgccccaag ttatttcatc aggctaagaa cttctccgag aaacgcacaa gaaggcaggc     120
aaacaggtgg gtaggtgaga ggtcacgggg ctccatctgc aagctccatc tacaaggcat     180
caatctgcgt tgtggcatca acgttaaaat gttctacagc ttagggatct tcttgaagca     240
aggttccaag cacaaaacta gtatgaccgg aggcttcaat ttagaagatg cagcatctga     300
aaacctttac cccaggaaag gaggggtgcc tggctgggat tncatggggc tctggaacaa     360
gcattttatt caaagctg                                                  378
```

<210> 467
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 467
```
agcantgccc tctccccaca gtaataaaaa gcactgtaca taatgccctg ggaagaagtt      60
agacatgaac tccaatactt caggacaagt atggttctca aagtgtgatc cagggaccaa     120
ccctctgagg aagtccacga ggtcaagcta ttttcataat actgctacac agatgttatt     180
tgtccctttc actctcattc tctcacaagt atactgtaga gttttccaga ggcttcatga     240
agtgtgtgtg gtgacattat tgctcccang gctaatgtaa tgtgtgcatg tgtatttatt     300
ttaaaaatgg attcgcttta atttcnagta tgggtaagta tccaaagnac caaatataag     360
caaagcncct tgaga                                                     375
```

<210> 468
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<223> n=a,t,g or c

<400> 468
agaacaaaat atattttatt ttaattatac cagcacagta aggcccagaa agaccatgga   60
gttgcacaaa gaatgttcag caccagcaag ataaaacaga tactggcagt cagtgctaac   120
ggctagcaca caagcccctg ccgcatttgt atgatctgga gcaganctcc tgaacatctt   180
catccatgtg accctgtgca gcactaagaa ggtgtgtccg ataaattgca attacttctt   240
ggtgctgtct gtcagcatcg gccagctgtt gctccagaga tttcacttgg tgctgcagag   300
tgtcaatcag ctggctctgc ctcttggtgg ggttcccact tgtgtaggtg agttgggaaa   360
ggccattgag tg   372

<210> 469
<211> 544
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 469
ttaatttaaa gaaaacttct ttattaagta aatggacagt tggtacacag atattgcaaa   60
aatttcgagg cgggtacatg aatgactgaa attcaggaga cgcggggagt tagcacagaa   120
gcactttcct cattcagagc tcttttggct gcgagaaaca gacacccaat caaatcagct   180
tcancaaaat gagagaatgt atcctgacaa gggacgctca cagggcctaa aggaagagtg   240
ctgggcccct ggaggactga gggaagccgg cagtccctgg aggcggtgcc ggctgctctc   300
caggcgcctg tgattcctct ggtccctgcc ttgctatgcg tatcttccct ctgagcagag   360
ccattttctc taccacattc atgcaggtgc ccatcccccg gaacacacac agacaaacac   420
acacacatgg acacagtcan agctccaggg tttctatgtg ttcaggtaag gganctgcaa   480
agcctgaaca gcctccctaa atctagatgc ccanctttat cctttcagct ccatcagang   540
atca   544

<210> 470
<211> 138
<212> DNA
<213> Homo sapiens

<400> 470
tttttttcatc accatagttt ttaatgaaga aacttgttta aaattgtaaa ggaaaaaatg   60
ggaatgggac ggcaaaatct tagcagcaaa gtggttaaac aaattgaaaa tattaatgca   120
caaacattaa aatattaa   138

<210> 471
<211> 463
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 471

```
cgttgtaatt atttattctg ttactggctg cttagtgtga catatttgat gttatttcaa      60
ttgtaatact cttcaaattg gaacactcct tttctgatat tcttagcaaa tccctctttt     120
atttttgcca cttgttataa tatctctaag aagttactcc aggaccgggc agtagggatt     180
actgattcag atgggtccag tgactagaat atgagtagaa agtgtgaggt ctaatttgaa     240
cctgtcagag ttactgttgc ctgcgctggc ccaaagtgca gatttttagt cagcttgtga     300
taggccaggt gttttgtctg gaccaggagt tatctttgac ttgtagctag aataaggatc     360
ctgagaagtc aggtatccac ttgatgtcct tttatttgac ttgttaccat tagtactctc     420
ctgggatcaa ggctgccaac cgaacctata ncccagattt ccc                      463
```

<210> 472
<211> 306
<212> DNA
<213> Homo sapiens

<400> 472

```
aactttactc ataaaatttt atttgaacaa aacaattttt gaaaatataa aaatttcata      60
agaactgctt tcctgttaga tacaaaattt attttaaaaa taaataatta tattgacctt     120
taccatcact tgtctaaatt ttactcatgt ttattgtcga agacacagag gtgaattaga     180
agagtatatc attatacatt gtcaaataaa gcgaaggttt ccttatccaa atagagagaa     240
tatatatgtg attacttaat ataaagcaaa agctatttct accaaagaac agacatgcag     300
ttattg                                                                306
```

<210> 473
<211> 447
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature

<223> n=a,t,g or c

<400> 473

```
aactttactc ataaaatttt atttgaacaa aacaattttt ganaatataa aaatttcata      60
agaactgctt tcctgttaga tacaaaattt attttaaaaa taaataatta tattgacctt     120
taccatcact tgtctaaatt ttactcatgt ttattgtgaa gacacagagg tgaattagaa     180
gagtatatca ttatacattg tcaaataaag cgaaggtttc cttatccaaa tagagagaat     240
atatatgtga ttacttaata taaagcaaaa gctatttcta ccaaagaaca gacatgcagt     300
tattgatctg gaattggcat cgattacaaa ctactctngc aattcttcct ctccccaatt     360
aaggtgtctc tcttgaactg gattgaaagc tgtttgataa gtatactttt ttcaagatgg     420
tgtgcncagt tggggggcct tttatta                                        447
```

<210> 474
<211> 164
<212> DNA
<213> Homo sapiens

<400> 474

```
gcattatttt aagatcttta ttattaagta actcactggg gttgtcaaag tatgttataa      60
aattacacag ataattagag atatatgtta catagaaatg ctgattttac actctcttct     120
```

293

```
gagtacaagc atttgattac agaggctcat agcacaacaa aatg                      164

<210>  475
<211>  510
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  475
tttttttatac aaacaagttt cttttattgt ttccacacat tcataataac tatagaacag      60
aaagattgtt ttaatttgct gtcctacttc ggtgacctga tgaatacact ggtaacagtc     120
cccagtttga gtaagatcag ttgaagccct tactgtataa gtccaaaatt taagaaaaat     180
gaatctcacg atgagcttcc tcaggcttcg gccgtgcgtg gaccagtcag cttccgggtg     240
tgactggagc agggcttgtc gtcttcttca gggtcactct gaaagggttg tctgggcttg     300
gtcttgcctc ccaggtttca cgcgctgcag gttttacatg gctgtggtgg atccaggctg     360
ggattccttc tacttcacag cggtgggagg gctcagaacg acagctgggg tctttccaca     420
gtggacacaa agaggtacgt tccagttctt gatcaaatng atcactgggg agaaaaggtg     480
aactggggag aataantaac aggccattta                                      510

<210>  476
<211>  348
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  476
ncttttttaat aatttcagaa taaagtctca tttcagtgca gtgggctggg tggtggggga      60
gagggttgaa agccccactt gggtccccga gggtccattg agccctctca ggccagctcc     120
aggaatcctg ggcctgggtc acagagcaga gttgcttgca gggtcctagt ggccatcggg     180
ctggggcagg acatcatctc tcagagggtc agaggctcag agctgggtgc agctcagcag     240
gtcacggccc tccaccagct ctgggttctc ccgcatcatg tgggtgggct gctttttccc     300
ccaccagggg cctnagctcc agcagctngg tggggtnagc ttagcaac                  348

<210>  477
<211>  415
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  477
aatatcttag ttttttttat ttcccttgca ggcaatctct ttgaacagag gtttattcaa      60
tgaaggaaag gtggagggaa gaagggaaga attacaatgg ttagaaaaga gcaactaaag     120
```

```
attatttcta ttatacttct gaacggtaaa ctagcaattt taataaatat tggggtccac      180
ttaaatctat taaagcagaa agtgtaaagc tatctccatt agtgaagaga tgaagtgaca      240
aaaaccaatc agtttttgta ggcaactgat ttaggaaaat cttgtactga aatcaacaat      300
tagacttgca catcatagga ttttcaaatg tttgctgaat tggaaaagga ntttttcccc      360
ggggattttt tnccccgag ggggtccttn ttccaatggg ggacctccgg tntgg           415
```

<210> 478
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 478
```
tttttttttt nctgccaaaa gcctttaata tgccctggnc ccaggctgtn ttcatgaaaa       60
gcggacacag cagtgcttcc aacttcaatg gttcccaggt tcaaggttcc tcccagcgga      120
ggtgggaggg caagccctca cacctggcac ccctgaagtg catactcctg gaggaagtcg      180
ttgagctggg acaggctgcc cgntggcgtn gctccggaca aggctttcag agggcatntc      240
ctcgatccag ctattcgagt ccagcaggta ctgggggttt ccctcgaggt cataggtggc      300
cccatntaga cccatgatca aatattcttt cccaggttcc aagcgaaggg gccaggaggt      360
tcgaaccagg nanttncgca tctgattagc agcggc                               396
```

<210> 479
<211> 322
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 479
```
tttttttttt tttttttttt tttttttggg tggggagtac gganttatt ttattgttct        60
gcgtctgggt ttggttcctt ggacgtcacg gttcctggat ggggtgggt gggtcccact      120
ccctaagtca tggtcccacg ggcctnttgg gatttttttc caggttcaaa gtgcactgag      180
aaagcttcac agttttaata cttcctagat gctcaactga ggcaaagtga caaaatggcc      240
ctcccacccc cgcccgccac aaaantaaaa tcccaagccc ctggnagctg ctgctcagcc      300
cttatgaaaa aataatacaa ac                                              322
```

<210> 480
<211> 330
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

295

```
<400>  480
accacgggac  ntttttTaag  tttattctag  ggtgagtggg  tgcccaaggg  gggcagttga     60
gtatggccga  ggtcacctgg  tggcagggtg  ctcagggatg  gccacaggtt  ctatagggcc    120
ctgcagctgn  aantctctag  tcagttggga  tgcttcacct  tctgccccac  cccaagggg t   180
ttgggcaatn  catggatgta  gtagttttcg  taattcgcag  ggatcagtga  tgggcactga    240
gcaggcttga  ttctcacaca  catatgcagt  ggcctgggtc  ttccaaccgt  cggagggtac    300
tcaggaaagg  cancttgccg  gacaagaagc                                        330

<210>  481
<211>  207
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  481
ctggacagcg  ggcagcacca  ggcggcggac  agtgtcttcc  ttctgcagga  gcagcgcgng     60
gctctccacc  acctcctctc  catccttggt  ccagcgcacc  tntgcccagg  gccggcatag    120
ctcacaggtc  agcaccacac  gctccaggcg  cacggctgcc  acatacacct  tgccgctggg    180
atacacgatc  cacgaggaga  cgtctgt                                           207

<210>  482
<211>  391
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c

<400>  482
ttggtatana  agtttttat   ttcaaaatgc  aaaatggtgg  tcattgtaat  aattaataat     60
aataacataa  aaagcattta  tccttcctcc  ctagtgcaaa  atggtagacg  catttagata    120
attcacacag  tgttggaaat  gtcatgacaa  tgcagtgctg  cacagagaga  tactcaatcc    180
caaactcctt  tggtggatgc  ttgtggtagg  tcagttctag  atgtcagcgg  tttctctgaa    240
gttaagtcca  aataaaaaac  agcacgtgct  cctgcactct  cccagcggag  tcaggctcct    300
gtgcgcgcgc  cccctctggt  ctctcccttc  cttctcggtc  tgtctctgtc  tactgcgtnt    360
ccctcccact  ccgctggtct  cccacagttc  c                                     391

<210>  483
<211>  465
<212>  DNA
<213>  Homo sapiens

<220>
<221>  misc_feature
<223>  n=a,t,g or c
```

296

```
<400>  483
ttttaaaggn nnnaatgtga ctattttaat tattttggtg gcagggagtt ggttttacat       60
cacccaaaaa aaaaaaaaaa gccctggttt caaattcatt ggtaataaat atgctaactt      120
tctgaatcaa aatggagagc ctctcaagaa aaagagctat gcagtcagca atgacttaaa      180
ttagtcagga tagcaggcat ctggggttaa ggctgtttcc accattttgg tctcaccacc      240
atatacgngt gggaccacag ctgtgtagca cttgtttcng tcataagtnt agcaggtctc      300
tgtagcactg tcttcatcac agatattgct ctggggtagc agtaactatc tgattatccc      360
agctccactt ctgtagggnc acattttta cagaggtcag acaaatgggt acacaaatct       420
ggttccccaa tgggtnaggt ngggtccaga gntattctcc ccgtt                      465

<210>  484
<211>  301
<212>  DNA
<213>  Homo sapiens


<220>
<221>  misc_feature
<223>  n=a,t,g or c


<400>  484
ggtttaatta tgggaaaaag cactaaagtt aggtaaatga ttttgtttgt catgcttctc       60
ttgacaggcc tgtgggggga gaatggaaac agagatgccc cttggcntgn agntagacac      120
agcttgcagt gcacaggcag aggctctggg tcagtgcagg aagcagagtc accgccagtg      180
ccttgggatg gggatcacag aaggtgacct gtggctgcat gagccactgt aggactctga      240
cctcagtggg acaggatgac acaggcagct aggaattctg ggcaggggca ggtnggcatt      300
a                                                                      301

<210>  485
<211>  211
<212>  DNA
<213>  Homo sapiens


<220>
<221>  misc_feature
<223>  n=a,t,g or c


<400>  485
tttgtcaaga gccaagacac aggtaatgca cgacattgat tgctgcattt taccttcaaa       60
atatttgtcc ttattgactg ggtctcctta attaatgtac acatgtcatt agaatgcaga      120
cggaggggac tcaccatgaa tatctggggt tgattcccag atgtgtgttg cttctctatt      180
gcaagcagat tcccttgtcc ggatttactt c                                      211

<210>  486
<211>  341
<212>  DNA
<213>  Homo sapiens


<400>  486
tttttttttt accccagagt attttattta gggattcctg ccaccatatt aacatataaa       60
acaatctgga tgttgacata gaaatgcaaa tttcactata caaaggtaag gctccaatca      120
```

```
cagtaacatg gcccccatat ctctagtatt tcaatgaaat aaactcattg tgaattcacc      180
ccgagttgtg tttataaata ttagacaaac cacaaaatat attccaaata cataacattt      240
tacaatattt ttcaagcaca gacaaataca tactttactt tacctacatt gttttcatga      300
tccaacttgc attagcacta aaggcaatat tgtgtgtgta t                         341

<210>   487
<211>   376
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   487
agctcatcag ctatcgttag tgtattttat gtggcccaag aaaattcttc ttcaaatgtg       60
gcccagggaa gccaaaagtt tggacacctg tgatttacag gttatgccta gatctgaaac      120
agatccccat ccctcctaaa gctcgcccac tggttatggg ccctgtttct cttagaaaca      180
ccacacacat catttgggaa aagcacactg agtagaaaca tggcctgaaa gggtggtggg      240
cggtggacct ggcttcctgt ggccagaggt cagcggacga tagaaatggt ctgatcggcc      300
acagcaaaga cttgggaaga ttgggccccg ggaaggacac attgattggg cacagagcac      360
tgtgccggac gngggc                                                     376

<210>   488
<211>   525
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   488
ggtttagcaa aattgttata atttctttta aataacccac agacacccat cgacacttcc       60
aaatttacag agcaaaaaag tgatttgcag ctggttcctc cagggaattg gccccgaagc      120
tggctcagtt cacctccagg acctcagtct ccgggaggcc gaacttggtc ttgtgcttgt      180
cgaagagctt caccagggcc tccatgtaca tggtgtggta caggtcgatg tcttgctggg      240
ttgggtgctc cagcttgggg atggtgatgg gctctcccac aacagtgggt gatgggcttg      300
gagtagggca ccagccccca aggtgtcgga ggaagaagag gcctcgacca tggaagatgc      360
atggggcgaa accaatgtat ttctnggaac ttcttctggg acccatcggc cccaggagcc      420
ctcctcgaag atcacctgct ttgtacactt tcattctctc ccaaagggg tagatgggaa      480
ccaggtcagc tcccatgacg cagggcccag ttttnaaaaa aagcc                     525

<210>   489
<211>   470
<212>   DNA
<213>   Homo sapiens

<400>   489
tggaaatcag aggtgaatat ttatttaatt catatataaa ttttacataa tattcatggt       60
gctataaata taggcacatt ttttaaaagt ccagatacat ccaaaaatta ccccctcact      120
```

298

```
gtagcctact ccaatcccct caagacggaa tatctaacag tgtttggaaa acagggtcca    180
gaaaggccct gcccattaat tttaaaactt tctgaccatc aagaccattc tttcctgctt    240
caaccaagca gagtcaacaa ggatcatgtg ttttcagggt tttaattgca ctagttgatg    300
aattaagtaa atgcctctgc ctgggtagtt tgtaataggt ttatgggttt ggtttctcct    360
acttagttca agtcagagaa agaaaaacca atatctatat tcctattggc cttctttaaa    420
tccctatgag atggcttaaa aggatgtcac tgcaccagag gactcacttg               470
```

<210> 490
<211> 553
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 490
```
agaactgnan nttttattca nacatttnct ttgattnaaa tacattacgt acanngtcta     60
cattggatta gaagaatgac acaggggca gcaacactct cgcatcccag cctccantcc    120
ctgacnctgn gangcagggc cgatcggtgg gnannggnnn ngtngttcca tgagttcgnn    180
tcagaancct agncccggca ttctgggccc ctggctcttc cagagtccac attcaaggca    240
acctgagcac aggcttgagg gagagtggag aaaggccagg aaaggatgcc cacactcttg    300
cctgccaggc ccaggaccag ctctctccta cactnggacc caatttcctt ctggatcaca    360
gagctggtct ggatcaagac aatgtggaga tctggtgtgg aggctgtggc aggtgangca    420
gccgggctcc ctggttagac ccccaggctc tctttagcac nagatgggca ctttaccaac    480
aggtttgggt aaaaatgtct acngagagct atgcacaacc tgggtnccct tctgggctcc    540
taaaagtcaa ggg                                                      553
```

<210> 491
<211> 476
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 491
```
agtattttca taatttatat tgcttaaaat tatgatttgc atgctaagat gcaaacttac     60
gtgatatctt ctttagacat aatgctatta agagcacatg ctttataaaa taaaactggt    120
ctcattcata tcaggtgcag aaagccagtc ctgaaagcat agactatccc ttattctggc    180
tgttattaag gaaaaaattc atttaaaaaa tacagtaaag attgaaacca agtttactgt    240
ttcttgaaca gaataggaag aaaatatttt aaatggctga gctggtcatt agactattac    300
tcatttatct taaaggcaga aacttgtcaa cccaactacg tgaaacagag aagcatgatt    360
tgcttaagca ggcgacatta gagttaggcc tctccacngg gagcttcccc gaccgtcagc    420
acgtggcaga cagggatgcg gcccatcatt ccgcagggaa gaaccggccg ggccgg        476
```

<210> 492
<211> 455

299
```

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 492
ttatttcctt agtttattaa agatgacaat gaactgccag gctgcacaag caccacagca      60
ggtggaaacg cagttcagag cacgggcggc acacacggaa catctctact aagactcgca     120
ctcctttat gttagttcaa cgaaagctct aaatccttgg cagagaacgt caaaaacagc     180
ctcatttaag tggaaaatat ttgtcttcca ctcttctgct atgtcttgaa tcttgtctcc     240
acctggtaag caaactatgt ttttttttctt tcccttact tacagaaaga acactatcac     300
ctgccttcat ttagaaggaa ttctcttcag tgcattcaaa gcttctcccc ngcaacagca     360
gggggatttt cagatagtgg taacttgcaa agtgcttcca aaacatccca tcctctaccc     420
actttccccc ctcttggaat aaataactgg ggngg                               455

<210> 493
<211> 580
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 493
ttttttaaat aaattttta ttacaatgac aggaagactc tggatacaaa cacatttgct      60
aatataatca ctccactggt tacctaggcc tagacgtaca aaaggacacc catatctcat     120
caggagaaag acaattttga gtttctgggt gtagtaccaa gtggttatga tcaccacgta     180
cgtggtctat ccagttaact gtgtggcaat ttgctatttc aagtcctctc ataacagaaa     240
ttactgaaat atgtggaaca ccagtcaata taaagaattc atttttaaac agactagtga     300
atttgtgtca taaacacact tgcgtatgga tattaggaga gcattgcttg aatatctcta     360
aaactatttt taggaattaa aagctttcat agttaatggt atgatattgg ccttcagaat     420
tcatattgat aaaagcaaac cttagtcatt taacaggaat gtttaaattt tagagattct     480
aacatgcgat gccgaaaaat cctaacattt ccacttagta atgtcagggt tgtgccagtt     540
ctaatttccc atagctagta acatcagaaa atatntatca                          580

<210> 494
<211> 473
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 494
ccgataatga ctttatttta acatatttaa ttacagacat aaaatagctn nggaggggggg     60
tgagccccag cctagcccca ccatgggntc atnaggaggg gaggcgcagc ggggcccct    120

```
gctgaccctc tctctggggg tcttcctatg gcggggccta ttgcttgagt gggggaggag    180
ccatgcaaat gagggggca gagaagacgg tgacacagcg gcctccgtga gccacctcgt    240
agccctcgnc cttgacttcg tggctncgga tgatatagtc caggttgttc tcttccaaga    300
aggccttggt gacgtcaggc ccaaactgac agctcacgcc cgnttgctga ttcgagccgc    360
cgttctgttg gctgtggatc tgancaagaa caaggtcaca catggggccc tgaatcttgg    420
gggtttttcga ttccgctcaa attttccgga tgtcattcan ggtganaccg gtt          473
```

<210> 495
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 495
```
tttntntgca aagagaaata ggctcgttta ttnattcatt gatcaactgg cacttcttga     60
aancctgctg tgtgccaagc ctttccccaa aggaggatat cagtgnnnna gnaagtctca    120
gggtggaaag gacctggacc acacagagca ggactccaga gcctcctcca tatggcagga    180
atcaagcttt cacaggggaa acgcaggatt tcccacacat gcccatgcaa cacttcaagt    240
cacgcttgca ctggccatcc atctcacaga aattggggg gttnagcatc naacattggc     300
canaantcac tnggnacttn ccaagggttn cnccttgttg ggnttngggg ggtnnacagg    360
ggncccggca nttnatgcnc caagtttcng ggcaaanatt tctttttttcc c            411
```

<210> 496
<211> 353
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 496
```
gaagttataa aagcttgttt ttctttatta gaatactttt ttcaattctg atttgtcaca     60
atttagattc tttttctaag aataagcaga aatttacaaa atttaatttt tatttataca    120
ttcatccgtt caatacacat ttcaagaaag ctgtattgna ccccttnnag tnggtaagtt    180
ccagggccaa agaaccaaaa taaatccaag gagagagacc aacaaatgta tatttataac    240
acagagtaat aaaacacaaa taaatgtgga gttatttaag catgtaagat ggtacatgct    300
ctaccaaggt atgggggctt ctctaagaca caagatcaga ttaaagtctt gaa           353
```

<210> 497
<211> 253
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c
```

<400> 497

```
atagatttca cgtttaatat gtaatggaag ctctgtaaca tgagacagat agcaagcacg      60
gactctgctc actggtcgat gatggagcgc tgcaacacct gattcatcat gtcctcttca     120
tcaacatcat aatccacaaa agtctcannn ngaaaaccgg tgccggcgct ggatgtgctc     180
tctgaagttg gcgctgcggn agttgggggt ctcccaaggg catcgcggca catatnggac     240
aanccacagn ttt                                                        253
```

<210> 498
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 498

```
gcctggtctt gctcagactt tgaggagccc tcaggcgngt gtcagctgtc gctgatgggc      60
cttgtaatca aacttgtagt aggtgtgcag gatgcgcana ggntagatgc ggcagacctc     120
ctcggtagtg cccttctcct ccaggtagcg ctgcacacgc tcgatgatgg cacacacctg     180
ggcctcatcc ttcaagtgct ccacgtactc ttgggagtga gggtcangta ttntgcatta     240
ttttggtaaa ttcttcatcc attcgttcca ccagagttag gatgcagcca cggacacgca     300
nggcttggtc agcgttngtt gcaggttctc antctcttcc agaatattct gctccaacaa     360
aaatgtttgn ggatttggca aacagggata nccatcagct cattggatgc ag            412
```

<210> 499
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 499

```
cagagagcaa atcccattta ttggaatttc actgacaaca aattgagagg aaggcttccc      60
cctcccctga aacatgccat cctctctgcc ctcaggntcn agcacaggga taagaacccc     120
actccgcatg tccccagagg cagcactcca nnngggtngg gggnagggga ggggtgctct     180
acgccaggct ggggagctgg gacaggaggg aagacgtgca ccctcacctc ttggctcaat     240
ccctctcccc gggacctggt gctgccccca gtccctgggg tgngctggna nanngggctc     300
atgcaacaat tgagtagaca ggaggtggca cggaaacgtg gccttggtgc cccttggcgg     360
gggcgggagg actaaagggg ccatgctgtg gccacagcgg gtccaaatgg aagtatctgc     420
agtgtacata caggagggtt ggagat                                          446
```

<210> 500
<211> 394
<212> DNA
<213> Homo sapiens

<400> 500

```
tactttttttt taaaagattt ttttgtaaag aagggttgta tttagaggcc agtagctaga      60
gatccaacca gtggacctct tgaagcacta ccaggcctta aggcaccatc cgagggagac     120
tgggaaaact attattcacc caagcctccg gaaatgtaat gtaccagcag gcaaaaaaca     180
gttcttcatg tagtacaaaa tgaaacgaaa caaaacaaa aacagaaagt aaaaatgaaa      240
ccaaaacatt tcttaaattc tagtgccata gctttttttgt ttgtttgttt tttgttgttg    300
ttttgttttg ttcataagaa agagagaaag atactactta tccgtcagac acatgcatcc    360
tcatgtggtc gttgaactgc tccgatttgg tcaa                                 394
```

<210> 501
<211> 346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 501
```
tttttttttt tttttttttt ttaaaagact aatgtaactt cttttaattg tcattttatg      60
ctttctgcag ctgcccgcca ccctcccttc ccttggatga ccacttttgt aggctatagg     120
ggaccaggga acaaaggctg tttgnnnnnn gggngggaca nannanccc aatcanntgn       180
nnnananaa gctanaatta caaatnnann acaanaanta atgctgannn ctgggagagc     240
tgcanagngg ggaggcccgc tcctctttgt cagggtctat ttggcagtga ccttgctctg    300
aaggcgatgg tactccttca gctgacctng gccacccgg atngaa                     346
```

<210> 502
<211> 234
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 502
```
gtgatttatt tgcaatgggc acagtgatgc aaaaacaaga tattaagact ataaaatatg      60
tgactacaaa gaaccagcga aataaataca tagatattag atagtccaat aacttaaggn     120
ncccgtgcaa cgatncgagg gatccgcgcn cacnggaagt tcttcttgct gcagggcttg    180
gagagcgccg gccacgtcct agcctcggtc cgactcgtcc agcgtatggc ccgc          234
```

<210> 503
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 503
```
tttgcaatcc tcaaaccgtt tattgacagc acaaggctca acagcaggtg agcacgtgag      60
```

303

```
ggtgngaagc gcttgnaggc agtgtgggca ccaggcaggg gatcccggag aaagccctct    120
gccagggaca tggtgagggc gtggcatcac cacgaaggga gcataaataa cactggcagg    180
tgggtgggca gcaggagagg gagagcggac annacacggg gacacgcagg tcggcgggga    240
aaatgctggg acagggtcac acggggattc ggacacgcag acacagaagg gatcatggga    300
cgcccagagg atgccagagg gggcagacac accagagact cggggatggg catggtgctc    360
tgcccgtggt ggcccctcct ccaatactcg ccctgggctt tgcaggcagg actgggcggc    420
tgagcactct cccagcagag ccaagcaggg g                                    451
```

<210> 504
<211> 437
<212> DNA
<213> Homo sapiens

<400> 504
```
cagttaattt agaaagttta ttttgccaag gttgaggaca cactgtgaca cagactcagg     60
aagtcctgat gacatgtggc caagatggtt ggggcatacc ttggttttat acattttagg    120
gagacataag acattaatca atatatgtaa gaagaacatt ggttcagtgg ggagggagct    180
tccaggtcac agataggtga gacacaaaca gttgcattct tttgagtttc tgattagcct    240
ttccaaagga ggcaatcaga tatgtatcta tctcagtgag cagagagata actttgaata    300
gagtgggagg tgggtttgcc ctaagaagtt tccctaagct tgagttttcc ttagtgattc    360
tggggcccca agatattttc ctgtcacagt tgacatcccc aacacagtgt ttagggctca    420
gaaaaagata ccctaaa                                                    437
```

<210> 505
<211> 565
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 505
```
tttttttttt tttttaata aaaatcttta ttttttatt aaaaaagaag tactttggta      60
gctatttaaa taagnngggg gtgggaatga atgtcgagat acgagcacct gcatctttta    120
gtcaattgtc agtggagtcg gtggggtgct aagtgttctg aactgaagta ggtgcactaa    180
ggttccaagc tccctgcaag gatctggacg ggaggaaagc agaggccctg aagggaaaaa    240
agcctgcttc ccaatactta tttttatta ctgtacaaaa agcacactct ccctcttttt    300
gtctctccca ccaacggcac cccccaccc ccaacccaag aggactatac atggagtgca    360
gggacagagt tgaccaggag gcctttgtcc ggcaccctgc ccacaggctg agctcagccc    420
caggcccttt caggcatcta gacactccca tagcctggtc angctggggc aagggagatn    480
ccaggtcaca catacttccc tggaagagtt ggacttaggg gtaagagccg ggtgcacggt    540
anccagnctt gctctcattc ccang                                          565
```

<210> 506
<211> 440
<212> DNA
<213> Homo sapiens

<400> 506

304

```
agttataatt actttattaa ccttttggtc tttcaacatt tagatagtct ttcttaatat      60
ttccaggaga gtacctcatt tttattttga aaaccattca gcacatttat cttatgtaac     120
atgcagagat attatctatc tgtattttta aaattttcct gttactcatt gatacatagt     180
acttaattac atgttattcc atgtacactg aaaacaatat aggaaatata tacatctaag     240
acttctactt tgtacagtct ttcattaaat aagaatactt acacatacat tttcagatat     300
ttctaccttc ctgtatgtgt ttggaattgt atgtaggtag ccactgaaag aatttgggcc     360
ccttgggagg atggcagtgg aagtccatga agtaaagagc attctttaaa aagcagattt     420
gattgcatac ctttttagtta                                                440
```

<210> 507
<211> 427
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 507
```
tttttttttt tcntcccttg nacnataaat ttttattggc aggtcaggan aagagcnggg      60
ggtaagggtc ccttccttnc catccctcta cncanaagac accctccana gganagnaga     120
agccccagag cctgctgcct cagaggacct tggaggcaga caaattgttg tagtgatctt     180
cctgtccctc gagcaggctg cggttaggtg gcaatctcct gctccagccg cgacttgatg     240
tccatgagcc gctggtactc ctgattctgc cgctcactat cagctcgcac atcgcccagc     300
tgggttcaat accgctgatc agcgcctgga tatgcgccag tgggctccaa agcgcgcctc     360
cgtttctgcc agtgtgtctt ccaaggcagc tttcatgctc agctgntgac tgcagctcaa     420
tctcaag                                                               427
```

<210> 508
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 508
```
tttgacaggc tccagcgtgc tgccatgtga tagaagaatg atttattaga acaaattcca      60
tgacaaatca tataaaataa ccattttccg aaagacagcc acaagaccac ctgagaacga     120
atgtacagtg aaccctccga gaagcccggc aaacaaggac cagttcccag gcaaaggctg     180
gangggggagg aacaaaggag ctcagtgtgg ggaggagcag gaacttgtga acttaaaaca     240
ttgcacagcc actgccgagg ggtgggaagg agccgtggat gaagccgtga ccacttcatg     300
tccaggggca ggcggggttg gggcaactgg gncattgcag ggggtgggca gcaagccggt     360
tggaccggtt aagccacctc ctccattaca gacaggcagg ctcttggggc cggggaccag     420
ggggggggntc acctgncaac ccgggcccc ct                                  452
```

<210> 509
<211> 291
<212> DNA
```

<213> Homo sapiens

<400> 509
```
ggccgggcgc ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggtgga   60
tcacctgagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc cgtctctact   120
aaaaatacaa aaattagccg ggcgtggtgg cgggcgcctg taatcccagc tactcgggag   180
gctgaggcag gagaatcgct tgaacccggg aggcggaggt tgcagtgagc cgagatcgcg   240
ccactgcact ccagcctggg caacaagagc gaaactccgt ctcaaaaaa a   291
```

<210> 510
<211> 404
<212> DNA
<213> Homo sapiens

<400> 510
```
agttctccag gaatctaata tgggtgcttt ttaagaagag agccaccggt ctcagctaat   60
aatacaattt tcacaaataa atccaaaatt taaggtagga ttaaaaagga gtaaaccaat   120
acataaaaaa tgaaattgag aactgattta atactaaagt tctgaataaa ggtgtgcact   180
ttatgattga ttctatcttt ttgcacaagt tggatactcc agtttcccat cccaacatgt   240
tgttcgcaat gtgtgagaac gtgatgaaag acgatatccc cgtttacaca caaattcaac   300
tgattcacct gttctcgaat aaagcttctg tttggctgtc caccttaatg ctatgttata   360
attttccata atttctcggg atattacaca cggatgtaag catt   404
```

<210> 511
<211> 425
<212> DNA
<213> Homo sapiens

<400> 511
```
tggggggtttt taaggtgccg catgttcttt ttagtttcca tacatcgtct gtcccagagt   60
gaggagaagt tgatctcctt cccacatcca ccggaggctg cgtgagggaa gcctggctcc   120
ccacaacttg ctccttctcc agccctgccc ctctcaatta aaacaatgct ttcttttttc   180
ttttcttttt tttgagacgg agtcttgctc tgtcacccgg gctggagtgc agtggcgcga   240
tcttggctca ctgcaagctc cgcctcctgg gttcacacca ttctccagcc tcagcctccc   300
aagctgctgg gactacaggc gcccaccacc acgccaagct aattttttgt atttttttag   360
tagagacagg gtttcactgt gttagccagg atggtctcaa tctcccaacc ttgtgatcca   420
cccac   425
```

<210> 512
<211> 328
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 512
```
ggcatttccc caacatttaa tcaggaaaaa acattccatg aacaaagaaa aactcatgca   60
actaaagagg agagaacggg gggtctggga ctgtcagaca gggccagatt cctcagagga   120
ggcagaagac acagagtagt aaggcacggc cgccttggcc ccacagggcg ggcactggac   180
```

306

```
ggagcgggcg ctgaatgggg cggctgaagg agtcggagca ggtgcagaca acacttagga     240
cgtttngcag taggctcagg aggaggagcg ttctagggcc cccatgccaa ngtcaggncc     300
tggcacaagc ctgagtccag tcctccca                                        328
```

<210> 513
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 513
```
ccaagaggcg agtttattgg gggagggggct ggtcaagtca tcagtgcaca ctgcatcccc     60
gctaagggca ggtcagtcca gtgtgtgggc cgcggggggtc acaggcatag cagnaggagg    120
gggagtnanc taccccacg ggnccacccc nagcccagtc caggggtngg agggaggggg     180
tgaccccctgt cgaggtcctc aggcatcttt ggctga                              216
```

<210> 514
<211> 325
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 514
```
gtacaaaact ttgaatttt tatttgtgaa attaaaaata tggtattata tatatataan      60
ctnctatncc tctataaata tagatgattt tgtgatagng ancagaataa atgtatacca    120
aattcaaaga ccaatatcat tttagcgtat gacagacata gataaattta ggncctaagt    180
accggcattt tgataaattc ttaaagttta aaacantaca atcaggagga ttgctttct     240
cctcttcttc acagagaact aaagtgaata tttttttaaat ggctttgaaa gatttacatg   300
ggacacattt ctgtaaatcc aaaag                                           325
```

<210> 515
<211> 178
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 515
```
cacagatatt tttaggtttt nagtagtggt cccgtcagac acaggcaagg attcaggctc      60
ggcctcccat gcgccaccct cgcccaccac actggggccg gagcagggcg gtcggctgca    120
gcccccgcta cttaaaggtg gactgcagct ccttgaaggc cgntttccgc tgcttcat      178
```

<210> 516
```

307

<211> 269
<212> DNA
<213> Homo sapiens

<400> 516
```
cccagggcag tggtgggtgc tttatttcca tgctgggtgc ctgggaagta tgtagacggg      60
gtacgtgcca agcatcctcg tgcaaccgga gagcccgggg aggggctctg cggccgtcgc     120
actcatttac ccggggacag gagaggctct tctcgtgtag tggttgtgca gaccttatgc     180
atcacgggca tgagaagacg ttcccctgct gccacctgct cttgtccacg gtgagcttgc     240
tatagaggaa gaaggagccg tcggagtcc                                       269
```

<210> 517
<211> 494
<212> DNA
<213> Homo sapiens

<400> 517
```
tttaactgag acagggtttt gctctgtctc tcaggctgaa gtacagtggc acaatcctag      60
ctcaagcagt tagaatagga tttttgaaca taattaagca caataaaata ggtaaaataa     120
aatacagtat tttccttgaa tttttatgtt aagtatacat atgtatatgt gtgtgtgtat     180
atatatatat ttgtgtattt gtgtgtgtgt ttcttctttt tagagccagg gtctcacttt     240
ctggtccagg gtaggagacc acgcagcatg atcacggcta cccttgtcca gggtaggagg     300
tccagtagca taatcacagc tcactgcagc cttgacttgc tgggcttgag caatcctccc     360
aggagatcaa ggctgcagta agccataatc atgcaactgt actccagcct gggcaacagg     420
gcaagaccct gtctcaaaaa aataagaaca ggccaggcac agtggcattt gaaatgaaag     480
ataatcagca aaac                                                       494
```

<210> 518
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 518
```
ggtaaagact tttaagagaa agaagtattt taaaaagtag cagtgctctg aggctcaggg      60
tgtaggatcg ggggcacagc atggtcccgg gaggcccctt gtgcacaggt ggtggcccag     120
ggcaagntgt ctcgctcttg ggggacgcgc ggccggggga cgcgtcctgt gtccggcccg     180
gggctcccag cgggctccgg cggcaggac aatggcaagg ccgctcacca cttgaggaag     240
accatcccgg ccaggacggt gtagcccagc accaggaaga ggaccttgag cagacggtca     300
ctcttctcct ccagctcctt ggccaggatc tccaggaagg tgatgaagag gaagg         355
```

<210> 519
<211> 283
<212> DNA
<213> Homo sapiens

<400> 519
```
cagctggagc gtatgacttt attgatccag gacatgtatt tgcagatctg ggtgtagaca      60
```

```
gctggatgct gggcagagca caggggtaaa caccccacga gaggatgcct tggagggtct    120
cgtcacagac caggggggcct ccagagtcac tctggcaagg gtcctggccc cggtccagtc    180
cagcacatat catgttgttg gtgaccacgc cagggtagaa gacctcacac tctttagggc    240
tcaggatagt gatgctggag caggtcaggc ccttgtggaa ctt                     283
```

<210> 520
<211> 409
<212> DNA
<213> Homo sapiens

<400> 520
```
tttttttttt tttttttttt ttttgggttt gatgattta tttctccctt cccataacca     60
gtaaaaaaaa aaaaaaaaat tacaatcagg cctggtggtg gctcacgcct gtgatctcag    120
cactttggga ggctgaggtg ggcggattgc ttgatctcag gagtttgaga ccagcctgag    180
caacacagcg agacctggtc tcaaaattat tatacaatca atgcaagtac aaagattcaa    240
tttttaaaaa tcaccagagt acaaagacgg ccacagcccc tgcccgggtt taacttacat    300
atatacagag tgggcggggc aggcatggcc acagaggtgg tattacaaaa tatacaaagt    360
ggtttctttc tttacatttc atagaagaag cctgcctcat ttccaaatg              409
```

<210> 521
<211> 545
<212> DNA
<213> Homo sapiens

<400> 521
```
tccttgacag tgtaaacact gacattgtac tccaggccgg gactcaggtt atcaaaagtg     60
caggagctct gatcagcatg gaccacttct tccaaagaat ttccctgctg gccgtttgta    120
ggggttgtgg taattctata accagtaatg tctggggtgg tgctcctctc ccaggagact    180
gtgagcactc cagtgtcagg gtttgcctcc agatgcaagt ttgttggtgg agacaatggt    240
gtcaccactt tgtttacaat tggcgcatct ctttcctgtc catctctcag gacttggatg    300
gtgtagacgt attctactcc tggagtcaag ccggacacaa cgatgcttcc tgagtctgaa    360
gtcacttctc gtggtgcctc tcctccctgg cttggtcgta cacccagctt aaaaccaatt    420
cttggagcag gcgtccatgt gatcacaatg gtggtctcag tcacctcggt gttgtaaggt    480
ggaatagagc tcccaggctg cagtgtggta gagactccag tggctttggg gctctcttgg    540
ttgcc                                                                545
```

<210> 522
<211> 376
<212> DNA
<213> Homo sapiens

<400> 522
```
ttattattca tttatttatt tattctgaga cggagtctca ctctgtcgcc caggctgaag     60
tgcagtggcg cgatctcagc tcactgcaac ctctgcctct agggtccaag cgattctcct    120
gccccagcct ccagagcagc tgggaccaca gacacacacc accacacccc gccaatcttt    180
gcaattccag tagagaccag gcttcaccat attggtcagg ccggtccgga actcccgacc    240
tcaggggacc cacccgccct ggcctcccaa agtactggga ttacaggagt gaaccaccac    300
acccggctct gcctttcttt gacccctccc agactggacc atcttgctac tctctccagt    360
cgttttcacc ttgatt                                                   376
```

<210> 523
```

<211> 315
<212> DNA
<213> Homo sapiens

<400> 523
aattattgag acggagcctt gcgctgtcac cgaggctgga gtgcactggc actgtcttgg      60
ctcactgcaa cctccgcctc ccgggttcaa gcgattctcc tgcctcagcc tcccaagtag     120
ctgggattac aggcatgtgc caccatgccc agctaatttt tgtattttta gtagaggtga     180
ggtttcagca tgttggccag gctggtcttg aactcctgac cttgtcatcc tcccaccttg     240
gcctcccaaa gtgctgggat tacaggcgtg acgaccacgg ccggctgtta tgctcatcat     300
ggcacttaag agatg                                                      315

<210> 524
<211> 449
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 524
ttgtttattg acatacaggt aggctctata gcaacaggcc tggnggtnct gcagtagtgg      60
gggaaaatgg angncggagg gtggggncag gtncaaactg gagaggccta gagagctaga     120
gangcaagta aggnccaggg cagantcggc ttcaatggaa caacagccca gtgccctaag     180
gcccctaact cttgctggct gtttcttgac cccaagccag ggttgggagt cctctgggca     240
tccatttttn ctaaagganc tggacagagt acacacagga aaggaagctt tcaccctctt     300
gccatctggc tccaggggcc tccagtccag cattcctcct tcttcccttn attgggtggg     360
gccacatgat gggcagccag gctctgggct gttcccacta gagcaggctg caaacacagc     420
cattttttcag tgaggcttga tcttcttna                                      449

<210> 525
<211> 322
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 525
aattnnaaan acatggctgc atttattgtt cccagcccgg cgagaaggtt ttcccagaaa      60
ggttccttgg gtcacctgcc cacccagcct tggtctgggc tgccatgtcc ccacgggcag     120
gagagaggca caagtcacag tcaggcaagg gagcctcagc ttcctgggcg gtggctnttg     180
gggtccctcc agtnttcacc tgggaccctc ggccaggttg ggacanattc cagggaggcg     240
aggttgcatg gtccagcggt gggtgcaggt ggcaacaggt tcggcgggtt ttgcaggttc     300
caaaaggagn tttcgggttg gg                                               322

<210> 526
<211> 281

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 526
ggggagtan ggattttatt caggggtggg gacaggcggg cggctcagta gcaggtgccg      60
tccacctccg ccatgacaac agacacattg acatgggtgg gtttacccgc caagcgtcga     120
atggtnttct gtgtgaaggc cagcgnaggg cctcgtggca nccatgcagg agaaggtntc     180
ccccttnttc cagtcctcgg ntgccacgcg cagtatgntg gtcacaggaa ggtgggtggg     240
tgccctggct gggnttcctg ccgggatgcc caagttcagg t                        281

<210> 527
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 527
cgcatgagat tattttatta aaaaactcaa aggaagcaga gtgtggagcg gtatctgtcc      60
ngcgtgacgt ctcacatcgg agttggctca gaccctggct gtgcatccat cagaaagtgc     120
aaggcccagg ccatgagctg gggaggaagc ctggnaagaa accaccgctg caggtcaatg     180
gagcctggga ctagtgacca agagttgggg cagacccagg gcactcacct gacagcttgg     240
acccgagcac agagggacgt gcagggtggc tcatactcat actgggaagg cagaaccatc     300
acgatgcctc tttggggggt tcctgaaagg ggtatgggtn tctgggggaa gagctaacaa     360
ggaccccaac cccatccaag gctacccatg ctccctncca gg                       402

<210> 528
<211> 441
<212> DNA
<213> Homo sapiens

<400> 528
tattttatt tacaacagaa ttggtggctt tattcctcca tctttaggga cacttggcat      60
tagcagctag atggaaagtc cgcagtgaag tcaaactcat tctgccccag ccacagctcc     120
ggaagctcat tggctcggtc caaccccagt tccaccacca gcgacatcag cacttcctca     180
tccactgggt ccgaatcgat gatagcaggg ctctgggcac cagcagaagg agagagtgat     240
tctgcccctc ccgcctgggc cccaaagtcc cagttttgca ggggtcctgc ctccccgggt     300
tggcctggag tggcagcagc atccctgat actggctatt aagtttctgc agctgcatac     360
tagccagcaa gtgaggggcg gggtgcaggt tgaaggattg ggggtttagt gggaggggtg     420
gttgtaggag agctatttgg a                                              441

<210> 529
<211> 383
<212> DNA

311

<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 529
```
cacaggaaca attcttttat tgtacattgg agaaatagcc ctgtgtgctg gttcaaggtg   60
caacatacag aatattgaat taagaaaaga gggaacgggg aagggaangg aaacctcttt   120
gaggtccaaa gttgncaaca aaaaatggta aaagatttcc tcacgcaaga nggcattttt   180
gcaaatacca tgcaaaacag gcagctggtg tgccttaaga gaatccctat aaataacaga   240
aaagacactc caagcattcc tgtacgtgga ctcagagcac agagaaaaga aactaaaatg   300
ccttttggat ttcaagatat ttggcactct tgtgattaca tttttttaca gtccattaaa   360
ggggaataaa ctgacataat att   383
```

<210> 530
<211> 488
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 530
```
gcgaccgcag tngcaactcc agctggggcc gtgcggacga agattctgcc agcagttcgg   60
tccgactgcg acggcggcgg cgacagtcna gggtgcagcg cgggccctng gggtcttgca   120
aggctgagct gacgccgcag aggtcgtgtc acgtcccacg accttgacgc cgtcggggac   180
agccggaaca nagcccggtg aaggcgggag gctcgaagat cccctcggga agggcggccc   240
gagagatacg caggtgcagg tggccgccgg atcccagccg cacttctggc gtgagtatcc   300
ggactgcagg ggccgggacg aggtcggtgt tcgaatcttc ccagctctgg ttggcccgca   360
acctgggtta agcaggtcct cgtagcgttt ccgcaactct ccggaatctg gagtcttccg   420
gtgtgcaact ctgaatggtc ccgggaaact tgcgcggctc gcatcggnta aagacagggt   480
gcccccat   488
```

<210> 531
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 531
```
ttttacatga gatattcaac attttattat aaaacaggct ttctgttaga tgattttgct   60
caactttagg tgttctgagc atgtttaagg taggctaggc taagccatga tgtttagtag   120
gttaggggta ttaagtgcat tttcaaatta ccatattttc aacttacaat agtttcaacg   180
ggaggtaacc ccatcgtaag tggaggaaca tctagtgcct ggcacacgag ccggttctca   240
ataaatataa ctcttctcca tcttcttcaa acctcaggcc aggtttcagt gacctcctct   300
```

312

```
cactttctaa gattattttt gcttgctggt gggtttactg tcatttttaa ccacatctaa      360
cctaccttaa aaaagtgtat ggatgggggt gccaggtaca aagacttagc ataangaaaa      420
cgaccattta ctttg                                                       435

<210>   532
<211>   366
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   532
ttttgagagc tgatgacaga caacagcaag ctactttaca gaatctacca actgggtagg       60
aaagtcttct gagtttcttt gcagacaaga aaagttacct gttgattgtt ggccaatcaa      120
taagggactt tcctctctgc cattaagagc aacgatgctg accacatact ctgtgcctgg      180
agtgaggttg gtgagggtga tggaattccg agagtggggc acccgatctt ctcgaggtct      240
cccactgaag tgctcgggat gatggcggat cctgtagcca gtgatggtgg ctcgaggagc      300
aatccagtgc acagtaaaag agttggcagt aatatccaga aaagtcaata cccatttggg      360
gantca                                                                 366

<210>   533
<211>   362
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   533
tttttccagc tcaacccttc tttaatgtca tccagggagg ggncanggnt tggaggggag       60
gggttgagga gcgngaggan gttattttg ggtggnntta ccacttttcc catgaagagg       120
ggaaacttgg tattttgttc aatcattaag aagacaaagg gtttnttgaa cttgacctcg      180
ggggggatag acatgggtat ggcctctaaa aacatggccc cagcagcttc agtcccttttc     240
tcgtcgatgg tcaagcacaa ccttattgca cggcttggan gagcttcagg ggtgctcctc      300
tgtgaccccg gagaggtcaa gccccattnc tgaagacctt agtgatgccc agttgaccca      360
gg                                                                     362

<210>   534
<211>   364
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   534
tttttttttt tttttttttt tgctttaagt tctttattac agttggatta acactaccac       60
```

313

```
actgaatata ctgaattaac tattcaaccc tttcatccat tcagcaaatt taaaactctt      120
gccaagtatc atgaacttac gaagaggaga taagagatct gatcttttct gtaggtattc      180
catctccagt ttgtcatatc tttcccgatt actgggattt atccacagan ttaggctgag      240
gaaacataac catccggggg aggcantcga tcaggggct accaggctag ctcgggtcac       300
ggatgttttc ggagggtttg gctggtctgg cctgtggggg attaaggccc acctttcagg      360
ggga                                                                   364
```

<210> 535
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 535
```
gcccatgcat ggaatttatt gtgtgctact gtttanaaaa nactcgaata gnccngcaca       60
ngcataatat ttccaactta gncaggggac catacagggg gcactttctg gcaaacaaaa      120
caatagntgg ttccgctgcc tgaagctctg agntgtattc cagggcatga gggaagcagg      180
ccaccaaagt aaaggggaat accaaactac agtggcaatc aatacagggc aataattgtg      240
aaaaattagc acatggttcc ctttagttta accaagcagt tcagtaacta tcaaaaggaa      300
aggtttcaac catgcag                                                     317
```

<210> 536
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 536
```
ttctggttgt caatgaggat atttattggg gtttcatgag tgcagggaga agggctggat       60
gacttgggat ggggagagag acccctcccc tggatccct gcagctccag ggtnccgtgg       120
gtngggttag agttgggaac ctatgaacat tctntagggg ccactntctt ctccacggtg      180
ctcccttcat gcgtgacctg gcanctntag cttctgtggg acttccactg ctcgggcgtc      240
aggctcaggt agctgctggc cgcgtacttn ttgttgctct gtttggaggg tttggtggtc      300
tccactcccn ccttnacggg gctgccatct gccttccagg gcactntcac agctcccggg      360
tagaagtcac tgatcagaca cactagtgtg gccttgttgg cttggagctc ctcagaggan      420
ggcgggaaca gagttacagt gggga                                            445
```

<210> 537
<211> 385
<212> DNA
<213> Homo sapiens

<220>

314

<221> misc_feature
<223> n=a,t,g or c

<400> 537
cagctcacaa gacagtttta ttgaattagt tgcatgcagg anaattctgt tcttccatga   60
gcagcagagt cgagtgttag agtgcaggnc cagagcgggg agaggctggn ggagttgggg   120
nctggagntg gggctggtta cttggtgacg tgcagantct ctctgggggg ctgcagctca   180
tcttggggg agctggactc agatgccccc gtangtgcaa aagcaacatc cacatctcac   240
tcctcccggt gctttttgcg gtattcctgc agcgtttctc cgccacggtc tccataaatt   300
tagggttctt cctgggagac ttctacaggg accgtcacag tgatgggatc agagtcaaag   360
agcttcacga ccacctcagt gacac   385

<210> 538
<211> 375
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 538
tcgcagcaat tttaattcaa tcccacgccc ctgtccagca ggaaacccct ttatagaaaa   60
cccaaatcct catcttggag tttctccttc agccagggca gcacttgaaa gaggttgatg   120
tgaaagtctc gggcgtgann ggttacctgc ttttgccgnt tctggttttt gcagacatcc   180
actactcccc agctgattac accaacttga atgaaacgan ttctcttgtg aactatcaag   240
gggccgccag antcacctnt gcaagtnttg gggtcagcat agggactcac tcctccagta   300
caaagggaac cgaggggtga ccacctntga ggatgtccct tgantttgtc atagcctggg   360
ggcaatattt gaggc   375

<210> 539
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 539
ttctcctttt ccngttccca agacatgtgc agctcatcat ctggccattt tctccctgac   60
ggtcccactt ctctccaatc ttgtagttca caccattgtc atggcaccat ctagatgaat   120
cacatctgaa atgaccactt ccaaagccta agcactggca caacagttta aagcctgatt   180
cagacattcg ttcccactca tctccaacgg cataatggga aactgtgtag gggtcaaagc   240
acgagtcatc cgtaggttgg gttcaagcct tcgttgacag agttgcccac gggtaacaac   300
ctntttcccg aaccttatgc ctctgctggg tcttttcagg tgcctccact tatggatgtt   360
gtagggtggg gcacctctgg gtnaggggggc ctgtcagagg tggggcactg ggtaggaagg   420

<210> 540
<211> 1201

<212> DNA
<213> Homo sapiens

<400> 540
```
agtcccagct cagagccgca acctgcacag ccatgcccgg gcaagaactc aggacgctga      60
atggctctca gatgctcctg gtgttgctgg tgctctcgtg gctgccgcat gggggcgccc     120
tgtctctggc cgaggcgagc cgcgcaagtt tcccgggacc ctcagagttg cacaccgaag     180
actccagatt ccgagagttg cggaaacgct acgaggacct gctaaccagg ctgcgggcca     240
accagagctg ggaagattcg aacaccgacc tcgtcccggc ccctgcagtc cggatactca     300
cgccagaagt gcggctggga tccggcggcc acctgcacct gcgtatctct cgggccgccc     360
ttcccgaggg gctccccgag gcctcccgcc ttcaccgggc tctgttccgg ctgtccccga     420
cggcgtcaag gtcgtgggac gtgacacgac ctctgcggcg tcagctcagc cttgcaagac     480
cccaggcgcc cgcgctgcac ctgcgactgt cgccgccgcc gtcgcagtcg gaccaactgc     540
tggcagaatc ttcgtccgca cggccccagc tggagttgca cttgcggccg caagccgcca     600
ggggcgccg cagagcgcgt gcgcgcaacg gggaccactg tccgctcggg cccgggcgtt     660
gctgccgtct gcacacggtc cgcgcgtcgc tggaagacct gggctgggcc gattgggtgc     720
tgtcgccacg ggaggtgcaa gtgaccatgt gcatcggcgc gtgcccgagc cagttccggg     780
cggcaaacat gcacgcgcag atcaagacga gcctgcaccg cctgaagccc gacacggtgc     840
cagcgccctg ctgcgtgccc gccagctaca atcccatggt gctcattcaa aagaccgaca     900
ccggggtgtc gctccagacc tatgatgact tgttagccaa agactgccac tgcatatgag     960
cagtcctggt ccttccactg tgcacctgcg cggggaggc gacctcagtt gtcctgccct    1020
gtggaatggg ctcaaggttc ctgagacacc cgattcctgc ccaaacagct gtatttatat    1080
aagtctgtta tttattatta atttattggg gtgaccttct tggggactcg ggggctggtc    1140
tgatggaact gtgtatttat ttaaaactct ggtgataaaa ataaagctgt ctgaactgtt    1200
c                                                                   1201
```

<210> 541
<211> 760
<212> DNA
<213> Homo sapiens

<400> 541
```
agagccggcg ccgtcaccgc ccgcattgcc gctcccagtc ccgcgctcgg cacgacatga      60
aatcccccga cgaggtgcta cgcgagggcg agttggagaa gcgcagcgac agcctcttcc     120
agctatggaa gaagaagcgc ggggtgctca cctccgaccg cctgagcctg ttccccgcca     180
gccccgcgc gcgccccaag gagctgcgct tccactccat cctcaaggtg gactgcgtgg     240
agcgcacggg caagtacgtg tacttcacca tcgtcaccac cgaccacaag gagatcgact     300
tccgctgcgc gggcgagagc tgctggaacg cggccatcgc gctggcgctc atcgatttcc     360
agaaccgccg cgccctgcag gactttcgca gccgccagga acgcaccgca cccgccgcac     420
ccgccgagga cgccgtggct gccgcggccg ccgcaccctc cgagccctcg gagccctcca     480
ggccatcccc gcagcccaaa ccccgcacgc catgagcccg ccgcggggcca tacgctggac     540
gagtcggacc gaggctagga cgtggccggc gctctccagc cctgcagcag aagaacttcc     600
cgtgcgcgcg gatcctcgct ccgttgcacg ggcgccttaa gttattggac tatctaatat     660
ctatgtattt atttcgctgg ttctttgtag tcacatattt tatagtctta atatcttgtt     720
tttgcatcac tgtgcccatt gcaaataaat cacttggcca                         760
```

<210> 542
<211> 1105
<212> DNA

```
<400>   542
gcgccgcgac tcgtgcgggt aggcgtctgc gctcggtttg agggctcggc gcggggtttc     60
ctgttccttc ttctgcgcgg ctgcagctcg ggacttcggc ctgacccagc ccccatggct    120
tcagaagagc tacagaaaga tctagaagag gtaaaggtgt tgctggaaaa ggctactagg    180
aaaagagtac gtgatgccct tacagctgaa aaatccaaga ttgagacaga aatcaagaac    240
aagatgcaac agaaatcaca gaagaaagca gaacttcttg ataatgaaaa accagctgct    300
gtggttgctc ccattacaac gggctatacg gtgaaaatca gtaattatgg atgggatcag    360
tcagataagt ttgtgaaaat ctacattacc ttaactggag ttcatcaagt tcccactgag    420
aatgtgcagg tgcatttcac agagaggtca tttgatcttt ggtaaagaa tctaaatggg     480
aagagttact ccatgattgt gaacaatctc ttgaaaccca tctctgtgga aggcagttca    540
aaaaaagtca agactgatac agttcttata ttgtgtagaa agaaagtgga aaacacaagg    600
tgggattacc tgacccaggt tgaaaaggag tgcaaagaaa aagagaagcc ctcctatgac    660
actgaaacag atcctagtga gggattgatg aatgttctaa agaaaattta tgaagatgga    720
gacgatgata tgaagcgaac cattaataaa gcctgggtgg aatcaagaga gaagcaagcc    780
aaaggagaca cggaattttg agactttaaa gtcgttttgg gaactgtgat gtgatgtgga    840
aatactgatg tttccagtaa gggaatattg gtgagctgca tatataaatt tgacagatag    900
ctatttacat agccttctaa gtaaaggcaa tgaattctcc atttcctact ggaggattta    960
tttaaataaa atatgcttat taaacactcc tgcaaagatg gttttattag taccctggtc   1020
attttgttca aggaagggtt atattgcatt ctcacgtgaa atataaaaag caagtcttgc   1080
ccaataaaaa cgctacattg tgtgt                                         1105
```

```
<210>   543
<211>   2497
<212>   DNA
<213>   Homo sapiens
```

```
<400>   543
gggcgccgag gctccccgcc gctcgctgct ccccggcccg cgccatgccc tcctacacgg     60
tcaccgtggc cactggcagc cagtggttcg ccggcactga cgactacatc tacctcagcc    120
tcgtgggctc ggcgggctgc agcgagaagc acctgctgga caagcccttc tacaacgact    180
tcgagcgtgg cgcggtggat tcatacgacg tgactgtgga cgaggaactg ggcgagatcc    240
agctggtcag aatcgagaag cgcaagtact ggctgaatga cgactggtac ctgaagtaca    300
tcacgctgaa gacgccccac ggggactaca tcgagttccc ctgctaccgc tggatcaccg    360
gcgatgtcga ggttgtcctg agggatggac gcgcaaagtt ggcccgagat gaccaaattc    420
acattctcaa gcaacaccga cgtaaagaac tggaaacacg gcaaaaacaa tatcgatgga    480
tggagtggaa ccctggcttc cccttgagca tcgatgccaa atgccacaag gatttacccc    540
gtgatatcca gtttgatagt gaaaaaggag tggactttgt tctgaattac tccaaagcga    600
tggagaacct gttcatcaac cgcttcatgc acatgttcca gtcttcttgg aatgacttcg    660
ccgactttga gaaaatcttt gtcaagatca gcaacactat ttctgagcgg gtcatgaatc    720
actggcagga agacctgatg tttggctacc agttcctgaa tggctgcaac cctgtgttga    780
tccggcgctg cacagagctg cccgagaagc tcccggtgac cacggagatg gtagagtgca    840
gcctggagcg gcagctcagc ttggagcagg aggtccagca agggaacatt ttcatcgtgg    900
actttgagct gctggatggc atcgatgcca acaaaacaga cccctgcaca ctccagttcc    960
tggccgctcc catctgcttg ctgtataaga acctggccaa caagattgtc cccattgcca   1020
tccagctcaa ccaaatcccg ggagatgaga accctatttt cctcccttcg gatgcaaaat   1080
acgactggct tttggccaaa atctgggtgc gttccagtga cttccacgtc caccagacca   1140
tcacccacct tctgcgaaca catctggtgt ctgaggtttt tggcattgca atgtaccgcc   1200
```

317

```
agctgcctgc tgtgcacccc attttcaagc tgctggtggc acacgtgaga ttcaccattg    1260
caatcaacac caaggcccgt gagcagctca tctgcgagtg tggcctcttt gacaaggcca    1320
acgccacagg gggcggtggg cacgtgcaga tggtgcagag ggccatgaag gacctgacct    1380
atgcctccct gtgctttccc gaggccatca aggcccgggg catggagagc aaagaagaca    1440
tcccctacta cttctaccgg gacgacgggc tcctggtgtg ggaagccatc aggacgttca    1500
cggccgaggt ggtagacatc tactacgagg gcgaccaggt ggtggaggag gacccggagc    1560
tgcaggactt cgtgaacgat gtctacgtgt acggcatgcg gggccgcaag tcctcaggct    1620
tccccaagtc ggtcaagagc cgggagcagc tgtcggagta cctgaccgtg gtgatcttca    1680
ccgcctccgc ccagcacgcc gcggtcaact tcggccagta cgactggtgc tcctggatcc    1740
ccaatgcgcc cccaaccatg cgagccccgc caccgactgc caagggcgtg gtgaccattg    1800
agcagatcgt ggacacgctg cccgaccgcg gccgctcctg ctggcatctg ggtgcagtgt    1860
gggcgctgag ccagttccag gaaaacgagc tgttcctggg catgtaccca gaagagcatt    1920
ttatcgagaa gcctgtgaag gaagccatgg cccgattccg caagaacctc gaggccattg    1980
tcagcgtgat tgctgagcgc aacaagaaga agcagctgcc atattactac ttgtccccag    2040
accggattcc gaacagtgtg gccatctgag cacactgcca gtctcactgt gggaaggcca    2100
gctgccccag ccagatggac tccagcctgc ctggcaggct gtctggccag gcctcttggc    2160
agtcacatct cttcctccga ggccagtacc tttccattta ttctttgatc ttcagggaac    2220
tgcatagatt gtatcaaagt gtaaacacca tagggaccca ttctacacag agcaggactg    2280
cacaggcgtc ctgtccacac ccagctcagc atttccacac caagcagcaa cagcaaatca    2340
cgaccactga tagatgtcta ttcttgttgg agacatggga tgattatttt ctgttctatt    2400
tgtgcttagt ccaattcctt gcacatagta ggtacccaat tcaattacta ttgaatgaat    2460
taagaattgg ttgccataaa aataaatcag ttcattt                              2497
```

<210> 544
<211> 1371
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 544
```
ctgcagggggg ggggggggc tgggacagtg aatcgacaat gccgtcttct gtctcgtggg      60
gcatcctcct gctggcaggc ctgtgctgcc tggtccctgt ctccctggct gaggatcccc     120
agggagatgc tgcccagaag acagatacat cccaccatga tcaggatcac ccaaccttca     180
acaagatcac ccccaacctg gctgagttcg ccttcagcct ataccgccag ctggcacacc     240
agtccaacag caccaatatc ttcttctccc cagtgagcat cgctacagcc tttgcaatgc     300
tctccctggg gaccaaggct gacactcacg atgaaatcct ggagggcctg aatttcaacc     360
tcacggagat tccggaggct cagatccatg aaggcttcca ggaactcctc cgtaccctca     420
accagccaga cagccagctc cagctgacca ccggcaatgg cctgttcctc agcgagggcc     480
tgaagctagt ggataagttt ttggaggatg ttaaaaagtt gtaccactca gaagccttca     540
ctgtcaactt cgggggacacc gaagaggcca agaaacagat caacgattac gtggagaagg     600
gtactcaagg gaaaattgtg gatttggtca aggagcttga cagagacaca gtttttgctc     660
tggtgaatta catcttcttt aaaggcaaat gggagagacc ctttgaagtc aaggacaccg     720
aggaagagga cttccacgtg gaccaggtga ccaccgtgaa ggtgcctatg atgaagcgtt     780
taggcatgtt taacatccag cactgtaaga agctgtccag ctgggtgctg ctgatgaaat     840
acctgggcaa tgccaccgcc atcttcttcc tgcctgatga ggggaaacta cagcacctgg     900
aaaatgaact cacccacgat atcatcacca gttcctgga aaatgaagac agaaggtctg      960
```
```

                                  318
```

```
ccagcttaca tttacccaaa ctgtccatta ctggaaccta tgatctgaag agcgtcctgg    1020
gtcaactggg catcactaag gtcttcagca atggggctga cctctccggg gtcacagagg    1080
aggcacccct gaagctctcc aaggccgtgc ataaggctgt gctgaccatc gacgagaaag    1140
ggactgaagc tgctggggcc atgttttag aggccatacc catgtctatc cccccgagg    1200
tcaagttcaa caaacccttt gtcttcttaa tgattgaaca aaataccaag tctcccctct    1260
tcatgggaaa agtggtgaat cccacccaaa aataactgcc tctcgctcct caacccctcc    1320
cctccatccc tggccccctc cctggatgac attaaagaag ggttgagctg g             1371
```

<210>   545
<211>   1352
<212>   DNA
<213>   Homo sapiens

<220>
<221>   misc_feature
<223>   n=a,t,g or c

<400>   545
```
ctgggacagt gaatcgacaa tgccgtcttc tgtctcgtgg ggcatcctcc tgctggcagg      60
cctgtgctgc ctggtccctg tctccctggc tgaggatccc cagggagatg ctgcccagaa     120
gacagataca tcccaccatg atcaggatca cccaaccttc aacaagatca cccccaacct     180
ggctgagttc gccttcagcc tataccgcca gctggcacac cagtccaaca gcaccaatat     240
cttcttctcc ccagtgagca tcgctacagc ctttgcaatg ctctccctgg ggaccaaggc     300
tgacactcac gatgaaatcc tggagggcct gaatttcaac ctcacggaga ttccggaggc     360
tcagatccat gaaggcttcc aggaactcct ccgtaccctc aaccagccag acagccagct     420
ccagctgacc accggcaatg gcctgttcct cagcgagggc ctgaagctag tggataagtt     480
tttggaggat gttaaaaagt tgtaccactc agaagccttc actgtcaact tcggggacac     540
cgaagaggcc aagaaacaga tcaacgatta cgtggagaag ggtactcaag ggaaaattgt     600
ggatttggtc aaggagcttg acagagacac agtttttgct ctggtgaatt acatcttctt     660
taaaggcaaa tgggagagac cctttgaagt caaggacacc gaggaagagg acttccacgt     720
ggaccaggtg accaccgtga aggtgcctat gatgaagcgt ttaggcatgt ttaacatcca     780
gcactgtaag aagctgtcca gctgggtgct gctgatgaaa tacctgggca atgccaccgc     840
catcttcttc ctgcctgatg aggggaaact acagcacctg gaaaatgaac tcacccacga     900
tatcatcacc aagttcctgg aaaatgaaga cagaaggtct gccagcttac atttacccaa     960
actgtccatt actggaacct atgatctgaa gagcgtcctg ggtcaactgg gcatcactaa    1020
ggtcttcagc aatggggctg acctctccgg ggtcacagag gaggcacccc tgaagctctc    1080
caaggccgtg cataaggctg tgctgaccat cgacgagaaa gggactgaag ctgctggggc    1140
catgttttta gaggccatac ccatgtctat cccccccgag gtcaagttca acaaaccctt    1200
tgtcttctta atgattgaac aaaataccaa gtctcccctc ttcatgggaa aagtggtgaa    1260
tcccacccaa aaataactgc ctctcgctcc tcaacccctc ccctccatcc ctggcccccct    1320
ccctggatga cattaaagaa gggttgagct gg                                   1352
```

<210>   546
<211>   5067
<212>   DNA
<213>   Homo sapiens

<400>   546
```
ctcctccca tcctctccct ctgtccctct gtccctctga ccctgcactg tcccagcacc      60
```

```
atgggaccca cctcaggtcc cagcctgctg ctcctgctac taacccacct ccccctggct    120
ctggggagtc ccatgtactc tatcatcacc cccaacatct tgcggctgga gagcgaggag    180
accatggtgc tggaggccca cgacgcgcaa ggggatgttc cagtcactgt tactgtccac    240
gacttcccag gcaaaaaact agtgctgtcc agtgagaaga ctgtgctgac ccctgccacc    300
aaccacatgg gcaacgtcac cttcacgatc ccagccaaca gggagttcaa gtcagaaaag    360
gggcgcaaca gttcgtgac cgtgcaggcc accttcggga cccaagtggt ggagaaggtg    420
gtgctggtca gcctgcagag cgggtacctc ttcatccaga cagacaagac catctacacc    480
cctggctcca cagttctcta tcggatcttc accgtcaacc acaagctgct acccgtgggc    540
cggacggtca tggtcaacat tgagaacccg gaaggcatcc cggtcaagca ggactccttg    600
tcttctcaga accagcttgg cgtcttgccc ttgtcttggg acattccgga actcgtcaac    660
atgggccagt ggaagatccg agcctactat gaaaactcac cacagcaggt cttctccact    720
gagtttgagg tgaaggagta cgtgctgccc agtttcgagg tcatagtgga gcctacagag    780
aaattctact acatctataa cgagaagggc ctggaggtca ccatcaccgc caggttcctc    840
tacgggaaga aagtggaggg aactgccttt gtcatcttcg ggatccagga tggcgaacag    900
aggatttccc tgcctgaatc cctcaagcgc attccgattg aggatggctc gggggaggtt    960
gtgctgagcc ggaaggtact gctggacggg gtgcagaacc tccgagcaga agacctggtg   1020
gggaagtctt tgtacgtgtc tgccaccgtc atcttgcact caggcagtga catggtgcag   1080
gcagagcgca gcgggatccc catcgtgacc tctccctacc agatccactt caccaagaca   1140
cccaagtact tcaaaccagg aatgcccttt gacctcatgg tgttcgtgac gaaccctgat   1200
ggctctccag cctaccgagt ccccgtggca gtccagggcg aggacactgt gcagtctcta   1260
acccagggag atggcgtggc caaactcagc atcaacacac accccagcca gaagcccttg   1320
agcatcacgg tgcgcacgaa gaagcaggag ctctcggagg cagagcaggc taccaggacc   1380
atgcaggctc tgccctacag caccgtgggc aactccaaca attacctgca tctctcagtg   1440
ctacgtacag agctcagacc cggggagacc ctcaacgtca acttcctcct gcgaatggac   1500
cgcgcccacg aggccaagat ccgctactac acctacctga tcatgaacaa gggcaggctg   1560
ttgaaggcgg acgccaggt gcgagagccc ggccaggacc tggtggtgct gcccctgtcc   1620
atcaccaccg acttcatccc ttccttccgc ctggtggcgt actacacgct gatcggtgcc   1680
agcggccaga gggaggtggt ggccgactcc gtgtgggtgg acgtcaagga ctcctgcgtg   1740
ggctcgctgg tggtaaaaag cggccagtca gaagaccggc agcctgtacc tgggcagcag   1800
atgaccctga agatagaggg tgaccacggg gcccgggtgg tactggtggc cgtggacaag   1860
ggcgtgttcg tgctgaataa gaagaacaaa ctgacgcaga gtaagatctg ggacgtggtg   1920
gagaaggcag acatcggctg caccccgggc agtgggaagg attacgccgg tgtcttctcc   1980
gacgcagggc tgaccttcac gagcagcagt ggccagcaga ccgcccagag ggcagaactt   2040
cagtgcccgc agccagccgc ccgccgacgc cgttccgtgc agctcacgga gaagcgaatg   2100
gacaaagtcg gcaagtaccc caaggagctg cgcaagtgct gcgaggacgg catgcgggag   2160
aaccccatga ggttctcgtg ccagcgccgg acccgtttca tctccctggg cgaggcgtgc   2220
aagaaggtct tcctggactg ctgcaactac atcacagagc tgcggcggca gcacgcgcgg   2280
gccagccacc tgggcctggc caggagtaac ctggatgagg acatcattgc agaagagaac   2340
atcgtttccc gaagtgagtt cccagagagc tggctgtgga cgttgagga cttgaaagag   2400
ccaccgaaaa atggaatctc tacgaagctc atgaatatat ttttgaaaga ctccatcacc   2460
acgtgggaga ttctggctgt cagcatgtcg gacaagaaag ggatctgtgt ggcagacccc   2520
ttcgaggtca cagtaatgca ggacttcttc atcgacctgc ggctaccta ctctgttgtt   2580
cgaaacgagc aggtggaaat ccgagccgtt ctctacaatt accggcagaa ccaagagctc   2640
aaggtgaggg tggaactact ccacaatcca gccttctgca gcctggccac caccaagagg   2700
cgtcaccagc agaccgtaac catccccccc aagtcctcgt tgtccgttcc atatgtcatc   2760
gtgccgctaa agaccggcct gcaggaagtg aagtcaagg ctgccgtcta ccatcatttc   2820
atcagtgacg gtgtcaggaa gtccctgaag gtcgtgccgg aaggaatcag aatgaacaaa   2880
actgtggctg ttcgcaccct ggatccagaa cgcctgggcc gtgaaggagt gcagaaagag   2940
```

320

```
gacatcccac ctgcagacct cagtgaccaa gtcccggaca ccgagtctga gaccagaatt    3000
ctcctgcaag ggacccccagt ggcccagatg acagaggatg ccgtcgacgc ggaacggctg    3060
aagcacctca ttgtgacccc ctcgggctgc ggggaacaga acatgatcgg catgacgccc    3120
acggtcatcg ctgtgcatta cctggatgaa acggagcagt gggagaagtt cggcctagag    3180
aagcggcagg gggccttgga gctcatcaag aaggggtaca cccagcagct ggccttcaga    3240
caacccagct ctgcctttgc ggccttcgtg aaacgggcac ccagcacctg gctgaccgcc    3300
tacgtggtca aggtcttctc tctggctgtc aacctcatcg ccatcgactc ccaagtcctc    3360
tgcgggggctg ttaaatggct gatcctggag aagcagaagc ccgacggggt cttccaggag    3420
gatgcgcccg tgatacacca agaaatgatt ggtggattac ggaacaacaa cgagaaagac    3480
atggccctca cggcctttgt tctcatctcg ctgcaggagg ctaaagatat ttgcgaggag    3540
caggtcaaca gcctgccagg cagcatcact aaagcaggag acttccttga agccaactac    3600
atgaacctac agagatccta cactgtggcc attgctggct atgctctggc ccagatgggc    3660
aggctgaagg ggcctcttct taacaaattt ctgaccacag ccaaagataa gaaccgctgg    3720
gaggaccctg gtaagcagct ctacaacgtg gaggccacat cctatgccct cttggcccta    3780
ctgcagctaa aagactttga ctttgtgcct cccgtcgtgc gttggctcaa tgaacagaga    3840
tactacggtg gtggctatgg ctctacccag gccaccttca tggtgttcca agccttggct    3900
caataccaaa aggacgcccc tgaccaccag gaactgaacc ttgatgtgtc cctccaactg    3960
cccagccgca gctccaagat cacccaccgt atccactggg aatctgccag cctcctgcga    4020
tcagaagaga ccaaggaaaa tgagggtttc acagtcacag ctgaaggaaa aggccaaggc    4080
accttgtcgg tggtgacaat gtaccatgct aaggccaaag atcaactcac ctgtaataaa    4140
ttcgacctca aggtcaccat aaaaccagca ccggaaacag aaaagaggcc tcaggatgcc    4200
aagaacacta tgatccttga gatctgtacc aggtaccggg gagaccagga tgccactatg    4260
tctatattgg acatatccat gatgactggc tttgctccag acacagatga cctgaagcag    4320
ctggccaatg gtgttgacag atacatctcc aagtatgagc tggacaaagc cttctccgat    4380
aggaacaccc tcatcatcta cctggacaag gtctcacact ctgaggatga ctgtctagct    4440
ttcaaagttc accaatactt taatgtagag cttatccagc ctggagcagt caaggtctac    4500
gcctattaca acctggagga aagctgtacc cggttctacc atccggaaaa ggaggatgga    4560
aagctgaaca gctctgccg tgatgaactg tgccgctgtg ctgaggagaa ttgcttcata    4620
caaaagtcgg atgacaaggt caccctggaa gaacggctgg acaaggcctg tgagccagga    4680
gtggactatg tgtacaagac ccgactggtc aaggttcagc tgtccaatga ctttgacgag    4740
tacatcatgg ccattgagca gaccatcaag tcaggctcgg atgaggtgca ggttggacag    4800
cagcgcacgt tcatcagccc catcaagtgc agagaagccc tgaagctgga ggagaagaaa    4860
cactacctca tgtgggggtct ctcctccgat ttctggggag agaagcccaa cctcagctac    4920
atcatcggga aggacacttg ggtggagcac tggcctgagg aggacgaatg ccaagacgaa    4980
gagaaccaga acaatgcca ggacctcggc gccttcaccg agagcatggt tgtctttggg    5040
tgccccaact gaccacaccc ccattcc                                       5067
```

<210> 547
<211> 1488
<212> DNA
<213> Homo sapiens

<400> 547
```
cgcgacggct gagcaaggac tctccagtcc tcagtcacct tggacaaaga agtgtggatc     60
ctcagattcc atctttttcca actccaaggt gccatggcag agaaggtgct ggtaacaggt    120
ggggctggct acattggcag ccacacggtg ctggagctgc tggaggctgg ctacttgcct    180
gtggtcatcg ataacttcca taatgccttc cgtggagggg gctccctgcc tgagagcctg    240
cggcgggtcc aggagctgac aggccgctct gtggagtttg aggagatgga cattttggac    300
```

321

```
caggggagccc tacagcgtct cttcaaaaag tacagcttta tggcggtcat ccactttgcg       360
gggctcaagg ccgtgggcga gtcggtgcag aagcctctgg attattacag agttaacctg       420
accgggacca tccagcttct ggagatcatg aaggcccacg gggtgaagaa cctggtgttc       480
agcagctcag ccactgtgta cgggaacccc cagtacctgc cccttgatga ggcccacccc       540
acgggtggtt gtaccaaccc ttacggcaag tccaagttct tcatcgagga aatgatccgg       600
gacctgtgcc aggcagacaa gacttggaac gtagtgctgc tgcgctattt caaccccaca       660
ggtgcccatg cctctggctg cattggtgag gatccccagg gcatacccaa caacctcatg       720
ccttatgtct cccaggtggc gatcgggcga cgggaggccc tgaatgtctt tggcaatgac       780
tatgacacag aggatggcac aggtgtccgg gattacatcc atgtcgtgga tctggccaag       840
ggccacattg cagccttaag gaagctgaaa gaacagtgtg gctgccggat ctacaacctg       900
ggcacgggca caggctattc agtgctgcag atggtccagg ctatggagaa ggcctctggg       960
aagaagatcc cgtacaaggt ggtggcacgg cgggaaggtg atgtggcagc ctgttacgcc      1020
aacccccagcc tggcccaaga ggagctgggg tggacagcag ccttagggct ggacaggatg      1080
tgtgaggatc tctggcgctg gcagaagcag aatccttcag gctttggcac gcaagcctga      1140
ggaccctccc ctaccaagga ccaggaaaag cagcagctgc ctgctctcca gcctctggag      1200
gaactcaggg ccctggagct gctggggcca agccaagggc ctcccctacc tcaaacccca      1260
gctgggcccg cttagcccac caggcatgag gccaaggctc cactgaccag gaggccgagg      1320
tctctaactc ttatcttcca cagggtccaa gagttcatca ggacccccaa gagtgagtga      1380
gggggcaagg ctctggcaca aaacctcctc ctcccaggca ctcatttata ttgctctgaa      1440
agagctttcc aaagtattta aaaataaaaa caagttttct tacactgg               1488
```

<210>   548
<211>   1517
<212>   DNA
<213>   Homo sapiens

```
<400>    548
gaattccggc gagtgcgcgc tcctcctcgc ccgccgctag gtccatcccg gcccagccac        60
catgtccatc cacttcagct ccccggtatt cacctcgcgc tcagccgcct tctcgggccg       120
cggcgcccag gtgcgcctga gctccgctcg ccccggcggc cttggcagca gcagcctcta       180
cggcctcggc gcctcgcggc cgcgcgtggc cgtgcgctct gcctatgggg gcccggtggg       240
cgccggcatc cgcgaggtca ccattaacca gagcctgctg gccccgctgc ggctggacgc       300
cgacccctcc ctccagcggg tgcgccagga ggagagcgag cagatcaaag ccctcaacaa       360
caagtttgcc tccttcatcg acaaggtgcg gtttctggag cagcagaaca agctgctgga       420
gaccaagtgg acgctgctgc aggagcagaa gtcggccaag agcagccgcc tcccagacat       480
ctttgaggcc cagattgctg gccttcgggg tcagcttgag gcactgcagg tggatggggg       540
ccgcctggag caggggctgc ggacgatgca ggatgtggtg gaggacttca agaataagta       600
cgaagatgaa attaaccgcc gcacagctgc tgagaatgag tttgtggtcc tgaagaagga       660
tgtggatgct gcctacatga gcaaggtgga gctggaggcc aaggtggatg ccctgaatga       720
tgagatcaac ttcctcagga ccctcaatga cacggagttg acagagctgc agtcccagat       780
ctccgacaca tctgtggtgc tgtccatgga caacagtcgc tccctggacc tggacggcat       840
catcgctgag gtcaaggcac agtatgagga gatggccaaa tgcagccggg ctgaggctga       900
agcctggtac cagaccaagt ttgagaccct ccaggcccag gctgggaagc atggggacga       960
cctccggaat acccggaatg agatttcaga gatgaaccgg ccatccaga ggctgcaggc      1020
tgagatcgac aacatcaaga accagcgtgc caagttggag gccgccattg ccgaggctga      1080
ggagtgtggg gagctggcgc tcaaggatgc tcgtgccaag caggaggagc tggaagccgc      1140
cctgcagcgg gccaagcagg atatggcacg gcagctgcgt gagtaccagg aactcatgag      1200
cgtgaagctg gccctggaca tcgagatcgc cacctaccgc aagctgctgg agggcgagga      1260
gagccggttg gctggagatg gagtgggagc cgtgaatatc tctgtgatga attccactgg      1320
```

                                 322

```
tggcagtagc agtggcggtg gcattgggct gaccctcggg ggaaccatgg gcagcaatgc    1380
cctgagcttc tccagcagtg cgggtcctgg gctcctgaag gcttattcca tccggaccgc    1440
atccgccagt cgcaggagtg cccgcgactg agccgcctcc caccactcca ctcctccagc    1500
caccacccac aatcaca                                                   1517
```

<210> 549
<211> 1493
<212> DNA
<213> Homo sapiens

<400> 549
```
gaattccggc gagtgcgcgc tcctcctcgc ccgccgctag gtccatcccg gcccagccac      60
catgtccatc cacttcagct ccccggtatt cacctcgcgc tcagccgcct tctcgggccg     120
cggcgccagg tgcgcctgag ctccgctcgc cccggcggcc ttggcagcag cagcctctac     180
ggcctcggcg cctcgcggcc gcgcgtggcc gtgcgctctg cctatggggg cccggtgggc     240
gccggcatcc gcgaggtcac cattaaccag agcctgctgg ccccgctgcg gctggacgcc     300
gacccctccc tccagcgggt gcgccaggag gagagcgagc agatcaaagc cctcaacaac     360
aagtttgcct ccttcatcga caaggtgggg tttctggagc agcagaacaa gctgctggag     420
accaagtgga cgctgctgca ggagcagaag tcggccaaga gcagccgcct cccagacatc     480
tttgaggccc agattgctgg ccttcggggt cagcttgagg cactgcaggt ggatgggggc     540
cgcctggagc aggggctgcg gacgatgcag gatgtggtgg aggacttcaa gaataagtac     600
gaagatgaaa ttaaccgccg cacagctgct gagaatgagt ttgtggtcct gaagaaggat     660
gtggatgctg cctacatgag caaggtggag ctggaggcca aggtggatgc cctgaatgat     720
gagatcaact tcctcaggac cctcaatgag acggagttga cagagctgca gtcccagatc     780
tccgacacat ctgtggtgct gtccatggac aacagtcgct ccctggacct ggacggcatc     840
atcgctgagg tcaaggcaca gtatgaggag atggccaaat gcagccgggc tgaggctgaa     900
gcctggtacc agaccaagtt tgagaccctc caggcccagg ctgggaagca tggggacgac     960
ctccggaata cccggaatga gatttcagag atgaaccggg ccatccagag gctgcaggct    1020
gagatcgaca acatcaagaa ccagcgtgcc aagttggagg ccgccattgc cgaggctgag    1080
gagtgtgggg agctggcgct caaggatgct cgtgccaagc aggaggagct ggaagccgcc    1140
ctgcagcggg ccaagcagga tatggcacgg cagctgcgtg agtaccagga actcatgagc    1200
gtgaagctgg ccctggacat cgagatcgcc acctaccgca agctgctgga gggcgaggag    1260
agccggttgg ctggagatgg agtgggagcc gtgaatatct ctgtgatgaa ttccactggt    1320
ggcagtagca gtggcggtgg cattgggctg accctcgggg gaaccatggg cagcaatgcc    1380
ctgagcttct ccagcagtgc gggtcctggg ctcctgaagg cttattccat ccggaccgca    1440
tccgccagtc gcaggagtgc ccgcgactga gccgcctccc accactccac tcc           1493
```

<210> 550
<211> 3344
<212> DNA
<213> Homo sapiens

<400> 550
```
gaattccgaa gacgcaaaag cagaaacccc tgataaaacc atcagacttc atgagactta      60
ttcaccacca tgagaacagt atgggggaaa ccaccccagt gattcaattt tctcccacca     120
gttgcctccc acaacatgtg gcaattatgg gagttcaatt aaagatgaga tttggatggg     180
gacacagagc caaaccatat caagtacaaa gaaaagagtc tcataagatg caagtgagga     240
agagtttttgt caaagcaaca ggcttcacaa gtcctggtta ggaagcgtcg tgcaaattct     300
ttacttgaag aaaccaaaca gggtaatctt gaaagagaat gcatcgaaga actgtgcaat     360
```

```
aaagaagaag ccagggaggt ctttgaaaat gacccggaaa cggattattt ttatccaaaa    420
tacttagttt gtcttcgctc ttttcaaact gggttattca ctgctgcacg tcagtcaact    480
aatgcttatc ctgacctaag aagctgtgtc aatgccattc cagaccagtg tagtcctctg    540
ccatgcaatg aagatggata tatgagctgc aaagatggaa aagcttcttt tacttgcact    600
tgtaaaccag gttggcaagg agaaaagtgt gaatttgaca taaatgaatg caaagatccc    660
tcaaatataa atggaggttg cagtcaaatt tgtgataata cacctggaag ttaccactgt    720
tcctgtaaaa atggttttgt tatgctttca aataagaaag attgtaaaga tgtggatgaa    780
tgctctttga agccaagcat ttgtggcaca gctgtgtgca agaacatcct aggagatttt    840
gaatgtgaat gccccgaagg ctacagatat aatctcaaat caaagtcttg tgaagatata    900
gatgaatgct ctgagaacat gtgtgctcag ctttgtgtca attaccctgg aggtcacact    960
tgctattgtg atgggaagaa aggattcaaa cttgcccaag atcagaagag ttgtgaggtt   1020
gtttcagtgt gccttccctt gaaccttgac acaaagtatg aattactttta cttggcggag   1080
cagtttgcag gggttgtttt atatttaaaa tttcgtttgc cagaaatcag cagattttca   1140
gcagaatttg atttccggac atatgattca gaaggcgtga tactgtacgc agaatctatc   1200
tatcactcag cgtggctcct gattgcactt cgtggtggaa agattgaagt tcagcttaag   1260
aatgaacata catccaaaat cacaactgga ggtgatgtta ttaataatgg tctatggaat   1320
atggtgtctg tggaagaatt agaacatagt attagcatta aaatagctaa agaagctgtg   1380
atggatataa ataaacctgg accccttttt aagccggaaa atggattgct ggaaaccaaa   1440
gtatactttg caggattccc tcggaaagtg gaaagtgaac tcattaaacc gattaaccct   1500
cgtctagatg gatgtatacg aagctggaat ttgatgaagc aaggagcttc tggaataaag   1560
gaaattattc aagaaaaaca aaataagcat tgcctggtta ctgtggagaa gggctcctac   1620
tatcctggtt ctggaattgc tcaatttcac atagattata ataatgtatc cagtgctgag   1680
ggttggcatg taaatgtgac cttgaatatt cgtccatcca cgggcactgg tgttatgctt   1740
gccttggttt ctggtaacaa cacagtgccc tttgctgtgt ccttggtgga ctccacctct   1800
gaaaaatcac aggatattct gttatctgtt gaaaatactg taatatatcg gatacaggcc   1860
ctaagtctat gttccgatca acaatctcat ctggaattta gagtcaacag aaacaatctg   1920
gagttgtcga caccacttaa aatagaaacc atctcccatg aagaccttca aagacaactt   1980
gccgtcttgg acaaagcaat gaaagcaaaa gtggccacat acctgggtgg ccttccagat   2040
gttccattca gtgccacacc agtgaatgcc ttttataatg gctgcatgga agtgaatatt   2100
aatggtgtac agttggatct ggatgaagcc atttctaaac ataatgatat tagagctcac   2160
tcatgtccat cagtttggaa aaagacaaag aattcttaag gcatctttttc tctgcttata   2220
ataccttttc cttgtgtgta attatactta tgtttcaata acagctgaag ggtttttattt   2280
acaatgtgca gtctttgatt attttgtggt cctttcctgg gatttttaaa aggtcctttg   2340
tcaaggaaaa aattctgttg tgatataaat cacagtaaag aaattcttac ttctcttgct   2400
attaagaata gtgaaaaata acaattttaa atttgaattt ttttcctaca aatgacagtt   2460
tcaatttttg tttgtaaaac taaatttta attttatcat catgaactag tgtctaaata   2520
cctatgtttt tttcagaaag caaggaagta aactcaaaca aaagtgcgtg taattaaata   2580
ctattaatca taggcagata ctattttgtt atgtttttgt ttttttcctg atgaaggcag   2640
aagagatggt ggtctattaa atatgaattg aatggagggt cctaatgcct tatttcaaaa   2700
caattcctca gggggaccag ctttggcttc atctttctct tgtgtggctt cacatttaaa   2760
ccagtatctt tattgaatta gaaaacaagt gggacatatt ttcctgagag cagcacagga   2820
atcttcttct tggcagctgc agtctgtcag gatgagatat cagattaggt tggataggtg   2880
gggaaatctg aagtgggtac attttttaaa ttttgctgtg tgggtcacac aaggtctaca   2940
ttacaaaaga cagaattcag ggatggaaag gagaatgaac aaatgtggga gttcatagtt   3000
ttccttgaat ccaacttta attaccagag taagttgcca aaatgtgatt gttgaagtac   3060
aaaaggaact atgaaaacca gaacaaattt taacaaaagg acaaccacag agggatatag   3120
tgaatatcgt atcattgtaa tcaaagaagt aaggaggtaa gattgccacg tgcctgctgg   3180
tactgtgatg catttcaagt ggcagtttta tcacgtttga atctaccatt catagccaga   3240
```

324

```
tgtgtatcag atgtttcact gacagttttt aacaataaat tcttttcact gtattttata    3300
tcacttataa taaatcggtg tataatttta aaaaaaagga attc                      3344

<210>   551
<211>   2533
<212>   DNA
<213>   Homo sapiens

<400>   551
ggagctcaag ctcctctaca aagaggtgga cagagaagac agcagagacc atgggacccc      60
cctcagcccc tccctgcaga ttgcatgtcc cctggaagga ggtcctgctc acagcctcac     120
ttctaacctt ctggaaccca cccaccactg ccaagctcac tattgaatcc acgccattca     180
atgtcgcaga ggggaaggag gttcttctac tcgcccacaa cctgccccag aatcgtattg     240
gttacagctg gtacaaaggc gaaagagtgg atggcaacag tctaattgta ggatatgtaa     300
taggaactca acaagctacc ccagggcccg catacagtgg tcgagagaca atataccca      360
atgcatccct gctgatccag aacgtcaccc agaatgacac aggattctat accctacaag     420
tcataaagtc agatcttgtg aatgaagaag caaccggaca gttccatgta tacccggagc     480
tgcccaagcc ctccatctcc agcaacaact ccaaccccgt ggaggacaag gatgctgtgg     540
ccttcacctg tgaacctgag gttcagaaca caacctacct gtggtgggta aatggtcaga     600
gcctcccggt cagtcccagg ctgcagctgt ccaatggcaa catgaccctc actctactca     660
gcgtcaaaag gaacgatgca ggatcctatg aatgtgaaat acagaaccca gcgagtgcca     720
accgcagtga cccagtcacc ctgaatgtcc tctatggccc agatgtcccc accatttccc     780
cctcaaaggc caattaccgt ccaggggaaa atctgaacct ctcctgccac gcagcctcta     840
acccacctgc acagtactct tggtttatca atgggacgtt ccagcaatcc acacaagagc     900
tctttatccc caacatcact gtgaataata gcggatccta tatgtgccaa gcccataact     960
cagccactgg cctcaatagg accacagtca cgatgatcac agtctctgga agtgctcctg    1020
tcctctcagc tgtggccacc gtcggcatca cgattggagt gctggccagg gtggctctga    1080
tatagcagcc ctggtgtatt ttcgatattt caggaagact ggcagattgg accagaccct    1140
gaattcttct agctcctcca atcccatttt atcccatgga accactaaaa acaaggtctg    1200
ctctgctcct gaagccctat atgctggaga tggacaactc aatgaaaatt taaagggaaa    1260
accctcaggc ctgaggtgtg tgccactcag agacttcacc taactagaga cagtcaaact    1320
gcaaaccatg gtgagaaatt gacgacttca cactatggac agcttttccc aagatgtcaa    1380
aacaagactc ctcatcatga taaggctctt accccctttt aatttgtcct tgcttatgcc    1440
tgcctctttc gcttggcagg atgatgctgt cattagtatt tcacaagaag tagcttcaga    1500
gggtaactta acagagtgtc agatctatct tgtcaatccc aacgttttac ataaaataag    1560
agatccttta gtgcacccag tgactgacat tagcagcatc tttaacacag ccgtgtgttc    1620
aaatgtacag tggtcctttt cagagttgga cttctagact cacctgttct cactccctgt    1680
tttaattcaa cccagccatg caatgccaaa taatagaatt gctccctacc agctgaacag    1740
ggaggagtct gtgcagtttc tgacacttgt tgttgaacat ggctaaatac aatgggtatc    1800
gctgagacta agttgtagaa attaacaaat gtgctgcttg gttaaaatgg ctacactcat    1860
ctgactcatt ctttattcta ttttagttgg tttgtatctt gcctaaggtg cgtagtccaa    1920
ctcttggtat taccctccta atagtcatac tagtagtcat actccctggt gtagtgtatt    1980
ctctaaaagc tttaaatgtc tgcatgcagc cagccatcaa atagtgaatg gtctctcttt    2040
ggctggaatt acaaaactca gagaaatgtg tcatcaggag aacatcataa cccatgaagg    2100
ataaaagccc caaatggtgg taactgataa tagcactaat gctttaagat ttggtcacac    2160
tctcacctag gtgagcgcat tgagccagtg gtgctaaatg ctacatactc caactgaaat    2220
gttaaggaag aagatagatc caattaaaaa aaattaaaac caatttaaaa aaaaaaaaga    2280
acacaggaga ttccagtcta cttgagttag cataatacag aagtcccctc tactttaact    2340
```

                                325

```
tttacaaaaa agtaacctga actaatctga tgttaaccaa tgtatttatt tctgtggttc    2400
tgtttccttg ttccaatttg acaaaaccca ctgttcttgt attgtattgc ccaggggggag   2460
ctatcactgt acttgtagag tggtgctgct ttaattcata aatcacaaat aaaagccaat    2520
tagctctata act                                                       2533
```

<210> 552
<211> 10476
<212> DNA
<213> Homo sapiens

<400> 552
```
ggatcctccc tcctcggcct cccaaagtgc caggattaca ggagtgagcc accacaccca      60
gccccatctc ttttcatcat ggtactaatt cctgcccgtc cacccacaaa agcactgtag     120
tcgttcccga gtatagaggc ctgtgagcct ccactaggga gagggctcct gcagagatca     180
gataaattga tcacaatggc tggggtggtg gcaatgtgct aatgctctct ttcttccact     240
caagatatcc tctgtctccc tcagcctgtg agcttttct ccagtgtgct ctgccagtgg      300
gggccctgcc tgagagcccc tgcagctgca gaggacagtt tctttctgct gaaccatcgc     360
agctatgccc cagcccctac cctggagggg tccccagggg ccatgggcag cacctcctgt     420
atagggctgt ctgggagcca ctccaggggcc acagaaatct tgtctctgac tcagggtatt    480
ttgttttctg ttttgtgtaa atgctcttct gactaatgca aaccatgtgt ccatagaacc     540
agaagatttt tccaggggaa aaggtaagga ggtggtgaga gtgtcctggg tctgcccttc     600
cagggcttgc cctgggttaa gagccaggca ggaagctctc aagagcattg ctcaagagta     660
gaggggggcct gggaggccca gggaggggat gggaggggaa cacccaggct gcccccaacc    720
agatgccctc caccctcctc aacctccctc ccacggcctg gagaggtggg accaggtatg     780
gaggcttgag agcccctggt tggaggaagc cacaagtcca ggaacatggg agtctgggca     840
gggggcaaag gaggcaggaa caggccatca gccaggacag gtggtaaggc aggcaggagt     900
gttcctgctg ggaaaaggtg ggatcaagca cctggagggc tcttcagagc aaagacaaac     960
actgaggtcg ctgccactcc tacagagccc ccacgccccg cccagctata agggggccatg   1020
ccccaagcag ggtacccagg ctgcagaggt gccatggctg agtcacacct gctgcagtgg    1080
ctgctgctgc tgctgcccac gctctgtggc ccaggcactg gtgagtctcc cccagcctcc    1140
cctctcctag gcagctccac cactcactga gcactgcttt gtgctaggca ttaacccaag    1200
tctgtcctca ttttaaagac aaggcagctg gggttcagag agggttcaga gcttatccaa    1260
ggtcacacag ctggcgggtc caggagcagg tggaacccag agctgtctga cgtccacatg    1320
tttaatggcc tcacactccc agcaaaactg ggtctagagg gtgggtgaaa tcatgatgcc    1380
aggtgtgtag cctggatcct gattaaggtt gctctggccc caaaccacag ctgcctggac    1440
cacctcatcc ttggcctgtg cccagggccc tgagttctgg tgccaaagcc tggagcaagc    1500
attgcagtgc agagccctag ggcattgcct acaggaagtc tggggacatg tgggagccgt    1560
gagtaccacc aaggatgcat ggcaactggg ggtctgaaat gaagggtgct gggtgggctc    1620
tggatgggca ggaggagagt ggagccccca taggggatgg atgagatgaa atgggatgag    1680
atgaaatgag ataggataaa atggaatggg atggatgcga tgggatacga tgacatagaa    1740
tagatggagt cggatgaatg ggatgggatg ggatggatgg gaggggaagg gataggatag    1800
gatgacatag aataaagatg gatgggatgg gatggatgg gatgggatga cacagaataa     1860
agatggatgg attgggatgg atgaatagaa gagatggatg ggataaattg atatggatga    1920
gatgggacaa gttgggctgg tgggcagctg catgtgcctt ggagtgctct gttggcctct    1980
tcctaagaga acctccccat tggagctggg agcctccccc actcatgtgt cctccacctt    2040
ggggcccctc cctccccagg atgacctatg ccaagagtgt gaggacatcg tccacatcct    2100
taacaagatg gccaaggagg ccatttttcca ggtaatgatg cccagatcct ggatgaaggt    2160
tggggcccaa gagatgaggg acagagcagg gaagagctga gccccctaaa ggggccatt     2220
ccaggctgag gaggaggcct gggtgcctgg gaagtcccag ctcctcctgg ctgggagcag    2280
```

<center>326</center>

```
gtcatggccc tgagctcaat agcacagcca gagatggtct tccctgaggg gaagggcccc    2340
tacatgtgcc caactactta actccttggc actcgtgaac tccagcaccc tgggggatta    2400
ggggtcagtc tgccctggtg gggccttgtg tccagggact tgggcggggt agacctcaga    2460
gaggcccagc tgacggcccc ctctggcctc ccaggacacg atgaggaagt tcctggagca    2520
ggagtgcaac gtcctcccct tgaagctgct catgccccag tgcaaccaag tgcttgacga    2580
ctacttcccc ctggtcatcg actacttcca gaaccagatt gtgagggctg caagctcacc    2640
tcctgcctgc ctccccacgc aggcccctgt gcccacccat gggggagcca cacacacagc    2700
accccagcca gccagacaca cacacacaca cacacacaca cagcacccaa gccggccaga    2760
cacaaacaca cagcacccca gccagccgga cacacacaca cacacacaca cacacaccc     2820
cagctggccg gacacacaca cacacagtac cccagctggc cggacacaca cacacacagc    2880
accctatcca gacacataca cacacacagt accccagcca gctggaaaca cacacacaca    2940
cagcactcca tccagacaca tacccacaca gtaccccagc cagccagaca cacacacaca    3000
cacacacaca cacacacaca cagagcacac acacagcacc ccagctggcc acacacacac    3060
acacacacac cctgtccaca aagggcctag gaaactacgt gcccttcagc catgcacccg    3120
accatgggcc cccaggttca ggtgcacacg gtgggcctgt acgctcacac acccttacac    3180
cctcactctc acacacatgc ttacacactt attcattctc acatatatgc tcatgctcat    3240
tcacacacaa tcccgggcca cctgccctaa agtccccaca cagccctatc tttgccttt     3300
gtccccccac atagagttct aaaccacagc acccccacta ggcctgcttc ctcccattcc    3360
agtggtccct gagcccttgg gccggcctga atagggggtgg gcttccctcc cagaccctaa    3420
cactcccacc ctgtgctgtg ccccaggact caaacggcat ctgtatgcac ctgggcctgt    3480
gcaaatcccg gcagccagag ccagagcagg agccagggat gtcagacccc ctgcccaaac    3540
ctctgcggga ccctctgcca gaccctctgc tggacaagct cgtcctccct gtgctgcccg    3600
gggccctcca ggcgaggcct gggcctcaca cacaggtgag ggaggccccc acagccagta    3660
aagtggagat ccagagggct agagccacct ccgaagccca tgggcactgg gccctgggag    3720
aggcagagcc gggaaggtga taggaagctc caggcagggc ctaagggagg agggagagaa    3780
agggaggaag agagagggga ggagagcctg gaggactctt ctcccagcac ccagcctggc    3840
ctccacctga ttctttcccc aggatctctc cgagcagcaa ttccccattc ctctcccta    3900
ttgctggctc tgcagggctc tgatcaagcg gatccaagcc atgattccca aggtgaggca    3960
tccagggcct caagagccca ggagcacacg catacctgta gctccctgca gctcccacct    4020
ctctcccaac tcacacccccc gtcagaccca gctggctgcc agaagttagg aggggagaga    4080
gccgcttgtg cattgccccc acccagggac cctgggctca ggctcaggcc tggtaggtgc    4140
caggtacagt tcatgcaaca aacattaagc ccccactgta tggaggtgcc agccaggagc    4200
caaagtacaa aaacgacaa gacgcagctt tgtcctccag cagctcacca tctgatggag    4260
aaagatcccc agaggtctct gtagaaaggt tgctttgatc tttcaagagg ggaatttcca    4320
cagatagatt ccccatcctt gcctgagtcc aacttggagt cttccagacc tgcagtggct    4380
attgtccaat ggccccgcca gcccagggct accttgccca aattggggcc caaatgagga    4440
aaggccctgc cccctcagcc tttcccagat tgggttgcgt gggccaccag gggcacaagg    4500
cagcaggtga ggttcctgct gaggcaggtg gttcacttga gcccaggagt tcaagaccag    4560
cttgggcaac atggcgaaac cccgtctcta ctaagaatac aaaaattagc cagatgtgac    4620
aggtgcctgt agtcccagct actcgggagg ctgaggcagg agaatcactt gaacccagga    4680
ggcggaggtt gcagtgagcc gacatcacgc cactgtactc tagcctgggt gacagagcaa    4740
gactctgtct caaaaaaaaa gaaagaagga aagatcactg cagagattgc agtgagaggt    4800
gatgggacag ggacggagct gagggctggc ctggggatgc atttgggagg tgggcccact    4860
gctatgggca tggatgggcc tggagcgtga ggaccaggga ggactccaaa gtgactttta    4920
cacactggcc agagcaacca gccctctgta atgccagcag ctgagatggg gagactaaag    4980
aagaaaacag gtttgagcaa aaaaacagag agctccctcc tggccatgtt gagttcaaga    5040
tgcctgtgtg aagtgcagga gaggagagtc aggcaagcag ctgaatccca agcattgggg    5100
```

327

```
gaaggtcagg tccaccatgt cagtctgaga gtcactagct gtgggccaga gcctttgggg    5160
ccagacgtag gtctgaagct ggctcctaca ctcagtgacc ctgtgtgagt ccccctgcatc   5220
ccctggactc tctgatcccc agtgtcctta tttgtgaata gccttgccct cccttctaga    5280
agagaatgag ggaatgcgta ggaagtgccc agctgggtgc tgggcagaga gtggaggctt    5340
gccaagtgaa ggtcccatgc tggcctctct ccgcccccgc cccagggtgc gctacgtgtg    5400
gcagtggccc aggtgtgccg cgtggtacct ctggtggcgg gcggcatctg ccagtgcctg    5460
gctgagcgct actccgtcat cctgctcgac acgctgctgg gccgcatgct gccccagctg    5520
gtctgccgcc tcgtcctccg gtgctccatg gatgacagcg ctggcccaag tgagcccact    5580
gcccctcct tagcccaatg cccgctctcc tcctcccct accctgccac tgcatgaccc    5640
tctccctctg tggtcccact gcaatgcacc aaggaggaca gaaaccaaac acctctgtag    5700
ggtggccttg cctgctttcc ccctaatgct cacatctcca gggtcgccga caggagaatg    5760
gctgccgcga gactctgagt gccacctctg catgtccgtg accacccagg ccgggaacag    5820
cagcgagcag gccataccac aggcaatgct ccaggcctgt gttggctcct ggctggacag    5880
ggaaaaggta tgggctgggc acatggggac tcatggtcag ggcccgttca aggcagaagg    5940
ctgagcccag gaaaggcttt gcagccagag acacctagga tgggccagaa tggagcacag    6000
acaggcagac aggatgtggg gcagacaatg gtgggactgt aagttagggc agagcctgct    6060
aagggttagg agtcgcctct ggacaaaggg ctgtgggctc cagaggacca gcaggccctc    6120
ttcacgggct gagtgagcac caggcaagcc ttcagaggcc tggttatcta ccaggagatg    6180
agtaatgcta gggccagttc aagccaggaa agggactagc cttctctcca gggtcctgat    6240
ccctttactg cccccacact cctcaaggtg tgactcactc aggacaaacc cattggcaaa    6300
aggagagggc tggacttgaa ggtcctaggg cccttgccaa tactcagtca atgacaggaa    6360
attccctttt tttttttttt tttttttttt ttgagatgga gttttgctct tgttgcccag    6420
gctggagtgc aatggcacaa tcttggctca ctgcaacctc tgcctccggg ttcaggcgat    6480
tctcctgcct cagcctcttg agtagctggg attacaggca tgtgctacca ggcccggcta    6540
atttttgtat ttttagtaga dacaaggttt caccatattg gtcaggctgg tctcgaaccc    6600
ctgacctgaa gtgatctgcc cgccttggcc tcccaaagtg ctgggattac aggcataagc    6660
cactgcaccc ggacaggaaa ttcccttctt aaagcgagat cctgtcctga ggaaagccag    6720
ctgatgctct tcccaggagg cagctgtcca cactgtgctc cctgctcagc aactcccaag    6780
cctcccgact gcccatcaca tctggtctca aggaccagat gaacgttaag gttccttcta    6840
gaactgaaat ggaggtggag ggaggggagg gtggtggctg agattccacc cctctgcctg    6900
agtcctccgt ctccagtgtc gcctgctttt ctgatggaag tcctccattt cagcctggct    6960
ccagtttgtt aagggtttca actgcagcca gaggtgttcc gtgagggctg atggaggagt    7020
cgggagggag ccctagagtg atccagagat gtggagaggc ccaggaccac acgacaggag    7080
agtcctgcaa agggacctcc acagctgtgt gtctccctca gtgcaagcaa tttgtggagc    7140
agcacacgcc ccagctgctg accctggtgc ccaggggctg ggatgcccac accacctgcc    7200
aggtacaccc aacccctccc aagttggtcc taggacttcc cttggctccc agagccccca    7260
ccctttgggc ccgtgatcct cagaggcctc actccctgg gtccaaggtg gtcccaggtg    7320
cacgggccag ggactgggag gcacccctct ctgtttcagt gtaaaaaatc atgagagcat    7380
ggaaaagggg gatgggaagg gagggatggc ctgaggagtg cggctggatg tccattatag    7440
gatggggctg tgttccctgg ccagtgtgtg ctggtggggt ggggtacaa agtgggtgtt    7500
ctggagtgaa catctcacct cctcaggctc taaaccctaa ggcctgtggc tcaggagtg    7560
gccgaggggt ctacagagtc acactggtag cacccactag gcgggaggtg gagtgagtgc    7620
tgttctttcc cggaagagct gggtgtgggg agctgagggg gcccaggcct cagccctggt    7680
gctgtccctg tgacaggccc tcggggtgtg tgggaccatg tccagccctc tccagtgtat    7740
ccacagcccc gacctttgat gagaactcag ctgtccaggt gagtccaggc ccccagttgc    7800
ggggaggtaa gggggcaggt cctgaccatc agggcatggg aggcccttct gctccccaag    7860
caggaagagg cggccactcc tgccggctgc tccatcctcc ctctcaccgc acagctggag    7920
gctcctgagg gcttctggct ggccatcagg aaaacaccct ttccggaccc cgagcactgc    7980
```

328

```
cccgcccaga accccagtca ctgagtgccc aaccccccagc ttcccccccca accccccgcc    8040
ctgccctgtc ccaggcctcc ctctcagagc ttgccccagg gactctctgg ccctcagggt    8100
tcaatgtatt ctgaccaagg ccaagctttc ctggggctca gggaaaatca cactttgcta    8160
cccgaagctg tatcccctca gatgccagga aggccgtgat catctgactc caccctcctg    8220
agacacattc tctccctgac tgtcctgttc taagtcagcg gagcacctta ggatggaggg    8280
gtggaggcga ggccagatgc agcctctgtg aacaggtgcc tggaggctgg gaaatgaccc    8340
tgagagggca ggacacagca accgtgggct taaggtgacc ttgagagcaa gcttggccca    8400
ctttacaatt ctgttcagag ccagcccta acatggtggt catttattca tttgttccct    8460
cattttaaaa aatgtaaggc caggcatggt ggctcacgcc ggtaatccca gcactttggg    8520
aggccgaggc aggcagatca cctgaggtca ggagttcgag actagcctgg ccaacatggc    8580
gaaaccctgt ctctactaaa aatatttttt aaaaattagc tgagcatggt ggcaggtgcc    8640
tgtaatccca gctactcagg acgcttaggc aggagaatca cttgaacctg ggaggcgaag    8700
gttgcggtgt gctgagatcg tgccactgca ctctagccta ggcaacagag cacaactctg    8760
tctcaggaaa aaaaaaaaa aaaaaaaagg tatttctttg ctgggcgcag tggctcacac    8820
ctgtaatccc agcactttgg gagaccgagg cgagtggatc acttgaggtc aggagttcaa    8880
gaccagcctt accaacatga tgaaaccccg tatctactaa aaaaaaaaa aaaaaaaaa    8940
aaaaaattag ccagatgtgg tggcacacac ctgtaatccc agctacttgg gaggctgagg    9000
aggagaattg cttgaacctg ggaggcggag attgcagcga gccaagattg cgcctctgca    9060
ctccagcctg ggtgacagag tgagactccg tctcaaaaaa aaaaaaaaaa aagtagtggg    9120
tgcctgtggc caggccacat cctagggtag gggctatggc tgagccctgc cctcctggag    9180
ctcacagcca agtccacttc ttccatctga ggcggggaag ccagccctgt tcctgaaacc    9240
ctgcatcaca agcccctgtg ggaggcagtg gggaggggag gtcctccccc actcagacct    9300
gacccacagg gaccagttta atgtgtcctt gccccagtga tgacagctgg ggatctgggg    9360
gtggggagtc acccaggacc cgggcagtcg cctttcccca gctcctaggg ctcccggcct    9420
tccctgctga aacagcaaga ccagtgggtt ggcgtgggag gcctgggctt caaaccacct    9480
ctgctatcac ctggctgtgg gtccccaggc aggacataca cacagtccct ctctggccct    9540
catcctcctc agctgcaaag gaaaagccaa gtgagacggg ctctgggacc atggtgacca    9600
ggctcttccc ctgctccctg gccctcgcca gctgccaggc tgaaaagaag cctcagctcc    9660
cacaccgccc tcctcaccgc ccttcctcgg gagtcacttc cactggtgga ccacgggccc    9720
ccagccctgt gtcggccttg tctgtctcag ctcaaccaca gtctgacacc agagcccact    9780
tccatcctct ctggtgtgag gcacagcgag ggcagcatct ggaggagctc tgcagcctcc    9840
acacctacca cgacctccca gggctgggct caggaaaaac cagccactgc tttacaggac    9900
aggggggttga agctgagccc cgcctcacac ccaccccat gcactcaaag attggatttt    9960
acagctactt gcaattcaaa attcagaaga ataaaaaatg ggaacataca gaactctaaa    10020
agatagacat cagaaattgt taagttaagc tttttcaaaa aatcagcaat tccccagcgt    10080
agtcaagggt ggacactgca cgctctggca tgatgggatg gcgaccgggc aagctttctt    10140
cctcgagatg ctctgctgct tgagagctat tgctttgtta agatataaaa aggggtttct    10200
ttttgtcttt ctgtaaggtg gacttccagc ttttgattga aagtcctagg gtgattctat    10260
ttctgctgtg atttatctgc tgaaagctca gctggggttg tgcaagctag ggacccattc    10320
ctgtgtaata caatgtctgc accagtgcta ataaagtcct attctctttt atgagaaaga    10380
aaaagacacc agtcctttaa agtgctgcag tatggccaga cgtggtggct cacacctgca    10440
atcccagcac cttaggaggc cgaggcagga ggatcc                              10476

<210>   553
<211>   914
<212>   DNA
<213>   Homo sapiens
```

329

<400> 553

```
ccagccaacg agcggaaaat ggcagacaat ttttcgctcc atgatgcgtt atctgggtct    60
ggaaacccaa accctcaagg atggcctggc gcatggggga accagcctgc tggggcaggg   120
ggctacccag gggcttccta tcctggggcc taccccgggc aggcaccccc aggggcttat   180
cctggacagg cacctccagg cgcctaccat ggagcacctg gagcttatcc cggagcacct   240
gcacctggag tctacccagg gccacccagc ggccctgggg cctacccatc ttctggacag   300
ccaagtgccc ccggagccta ccctgccact ggcccctatg gcgcccctgc tgggccactg   360
attgtgcctt ataacctgcc tttgcctggg ggagtggtgc ctcgcatgct gataacaatt   420
ctgggcacgg tgaagcccaa tgcaaacaga attgctttag atttccaaag agggaatgat   480
gttgccttcc actttaaccc acgcttcaat gagaacaaca ggagagtcat tgtttgcaat   540
acaaagctgg ataataactg gggaagggaa gaaagacagt cggttttccc atttgaaagt   600
gggaaaccat tcaaaataca agtactggtt gaacctgacc acttcaaggt tgcagtgaat   660
gatgctcact tgttgcagta caatcatcgg gttaaaaaac tcaatgaaat cagcaaactg   720
ggaatttctg gtgacataga cctcaccagt gcttcatata ccatgatata atctgaaagg   780
ggcagattaa aaaaaaaaaa aaagaatcta aaccttacat gtgtaaaggt ttcatgttca   840
ctgtgagtga aaatttttac attcatcaat atccctcttg taagtcatct acttaataaa   900
tattacagtg aaag                                                     914
```

<210> 554
<211> 580
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 554

```
ggcagttgag gcaggagaca tcaagagagt atttgtgccc tcctcgggtt ttaccttcca    60
gccgagattc ttcccctctc tacaaccctc tctcctcagc gcttcttctt tcttggtttg   120
atcctgactg ctgtcatggc gtgccctctg gagaaggccc tggatgtgat ggtgtccacc   180
ttccacaagt actcgggcaa agagggtgac aagttcaagc tcaacaagtc agaactaaag   240
gagctgctga cccgggagct gcccagcttc ttggggaaaa ggacagatga agctgctttc   300
cagaagctga tgagcaactt ggacagcaac agggacaacg aggtggactt ccaagagtac   360
tgtgtcttcc tgtcctgcat cgccatgatg tgtaacgaat tctttgaagg cttcccagat   420
aagcagccca ggaagaaatg aaaactcctc tgatgtggtt ggggggtctg ccagctgggg   480
ccctccctgt cgccagtggg cactttttt tttccaccct ggctccttca gacacgtgct   540
tgatgctgag caagttcaat aaagattctt ggaagtttan                        580
```

<210> 555
<211> 2470
<212> DNA
<213> Homo sapiens

<400> 555

```
aatcgcgaaa cccggcgagc ggcgcgctgg ctatcgagcg agcggggcgg aaccgggagt    60
tgcgccgccg ctcgggcgcc gggctccgtc gcggccgcag ccccgcgggt cgccctcccg   120
tgcctcgccc gcggacaccc tggccgtgga caccctggcc gtgggcaccc gcggggcgcg   180
gcgcgggcgc tgcgcggcgg cggcggcggc atgaaggtca cgtcgctcga cggcggccac   240
```

330

```
gtgcgcaaga tgctccgcaa ggaggcggcg gcgcgctgcg tggtgctcga ctgccggccc      300
tatctggcct tcgctgcctc gaacgtgcgc ggctcgctca acgtcaacct caactcggtg      360
gtgctgcggc gggcccgggg cggcgcggtg tcggcgcgct acgtgctgcc cgacgaggcg      420
cggcgcgcgc ggctcctgca ggagggcggc ggcggcgtcg cggccgtggt ggtgctggac      480
caggcagcc gccactggca gaagctgcga gaggagagcg cgtttgtcgt cctcacctcg      540
ctactcgctt gcctacccgc cggcccgcgg gtctacttcc tcaaaggggg atatgagact      600
ttctactcgg aatatcctga gtgttgcgtg gatgtaaaac ccatttcaca agagaagatt      660
gagagtgaga gagccctcat cagccagtgt ggaaaaccag tggtaaatgt cagctacagg      720
ccagcttatg accagggtgg cccagttgaa atccttccct tcctctacct tggaagtgcc      780
taccatgcat ccaagtgcga gttcctcgcc aacttgcaca tcacagccct gctgaatgtc      840
tcccgacgga cctccgaggc ctgcatgacc cacctacact acaaatggat ccctgtggaa      900
gacagccaca cggctgacat tagctcccac tttcaagaag caatagactt cattgactgt      960
gtcagggaaa agggaggaaa ggtcctggtc cactgtgagg ctgggatctc ccgttcaccc     1020
accatctgca tggcttacct tatgaagacc aagcagttcc gcctgaagga ggccttcgat     1080
tacatcaagc agaggaggag catggtctcg cccaactttg gcttcatggg ccagctcctg     1140
cagtacgaat ctgagatcct gccctccacg cccaacccc agcctccctc ctgccaaggg     1200
gaggcagcag gctcttcact gataggccat ttgcagacac tgagccctga catgcagggt     1260
gcctactgca cattccctgc ctcggtgctg gcaccggtgc ctacccactc aacagtctca     1320
gagctcagca gaagccctgt ggcaacggcc caatcctgct aaaactggga tggaggaatc     1380
ggcccagccc caagagcaac tgtgattttt gtttttaaga ctcatggaca tttcatacct     1440
gtgcaatact gaagacctca ttctgtcatg ctgccccagt gagatagtga gtggtcacca     1500
ggcttgcaaa tgaacttcag acggacctca gggtaggttc tcgggactga aggaaggcca     1560
agccattacg ggagcacagc atgtgctgac tactgtactt ccagaccct gccctcttgg     1620
gactgcccag tccttgcacc tcagagttcg ccttttcatt tcaagcataa gccaataaat     1680
acctgcagca acgtgggaga aagaagttgc tggaccagga gaaaaggcag ttatgaagcc     1740
aattcatttt gaaggaagca caatttccac cttatttttt gaactttggc agtttcaatg     1800
tctgtctctg ttgcttcggg gcataagctg atcaccgtct agttgggaaa gtcaccctac     1860
agggtttgta gggacatgat cagcatcctg atttgaaccc tgaaatgttg tgtagacacc     1920
ctcttgggtc caatgaggta gttggttgaa gtagcaagat gttggctttt ctggattttt     1980
tttgccatgg gttcttcact gaccttggac tttggcatga ttcttagtca tacttgaact     2040
tgtctcattc cacctcttct cagagcaact cttcctttgg gaaaagagtt cttcagatca     2100
tagaccaaaa aagtcatacc ttcgaggtgg tagcagtaga ttccaggagg agaagggtac     2160
ttgctaggta tcctgggtca gtggcggtgc aaactggttt cctcagctgc ctgtccttct     2220
gtgtgcttat gtctcttgtg acaattgttt tcctccctgc ccctggaggt tgtcttcaac     2280
tgtggacttc tgggatttgc agattttgca acgtggtact actttttttt ctttttgtct     2340
gttagttatt tctccagggg aaaaggcaat aattttctaa gacccgtgtg aatgtgaaga     2400
aaagcagtat gttactggtt gttgttgttg ttcttgtttt ttatatgtaa aataaaaata     2460
gtgaaaggag                                                             2470


<210>   556
<211>   577
<212>   DNA
<213>   Homo sapiens


<400>   556
caccactgct ttagaggcca gatttttctg gaggggattc ctctacacat gctacctcca       60
gttagcagga ggggaaggaa gggttgggag tcttggggag tctcaccatc aactcctcct      120
cctgctgctg ttccatttgc ctcagacatg gagttggagc tgctgcgggg cagccaggcc      180
atcatgctgc gctcagcgga cctgacagga ctggagaagc gtgtggagca gatccgtgac      240
```

331

```
cacatcaatg ggcgcgtgct ctactatgcc acctgcaagt gatgctacag cttccagccc    300
gttgccccac tcatctgccg cctttgcttt tggttggggg gcagattggg ttggaatgct    360
ttccatctcc aggagacttt catgtagccc aaagtacagc ctggaccacc cctggtgtgt    420
acctagtaag attaccctga gctgcagctg agcctgagcc aatgggacag ttacacttga    480
cagacaaaga tggtggagat tggcatgcca ttgaaactaa gagctctcaa gtcaaggaag    540
ctgggctggg cagtatcccc cgcctttagt tctccac                             577
```

<210> 557
<211> 3143
<212> DNA
<213> Homo sapiens

```
<400> 557
ggggaagtgt gggagcaggt gggctgggca gtggcagaaa cctgatgaca caatctcgcc     60
gcctccctgt gttggtggag gatgtctgca gcagcattta aattctggga gggcttggtt    120
gtcagcagca gcaggaggag gcagagacag catcgtcggg accagactcg tctcaggcca    180
gttgcagcct tctcagccaa acgccgacca aggtacagct tcagtttgct actgggttgt    240
gcattcagct gaatttcatg gggaagtcca aattctaagg aaaaaaatgt ggtagtataa    300
aaaggtatca ctgttgtaac ctatgaagat gtcagctatt cctttgaaat attttgcagg    360
aaaactcact accatgagaa ttgcagtgat ttgcttttgc ctcctaggca tcacctgtgc    420
cataccagtg agtacagttg catcttaaag aaaattcctg aaaataactg aattgtgtgc    480
ttccatgtgc taggaggaca ttcttgtaat ctttcttcat cttttctgtt tctaaggtta    540
aacaggctga ttctggaagt tctgaggaaa agcaggtaag catcttttat gtttttatat    600
agttaaatca tttactcaat tatggcgaga ggtgcaagaa acgtatttgc tgcgatcaaa    660
tgagttcata tttgtaaagc aatttgaaag agtgcctagc ccacagtaag tgctacataa    720
gagtttgtta aatgaatctg caaaaaaaaa aaaaattaca aaaaggtacc taagggtccg    780
ggtgactata tgcttccatc aagactagtg aagaatggtt gtttttttcca ttcatcccta    840
catttctttt tttaataatg ataaacatgc aacttttttg tagctttaca acaaataccc    900
agatgctgtg gccacatggc taaaccctga cccatctcag aagcagaatc tcctagcccc    960
acaggtattt ttaaacttct cataattaaa ctacagtgat gaaagatagc cacactcagg   1020
ccatttgggc tgctcagatg aatcctgccc tgcctgctgg caaacatgtg cttaggacat   1080
tgactgatct gccatgttgg cttctctctg tgttaagcca tccacagatg aggctgaaaa   1140
ataaaaactg ctttggatta aaaaggttaa cttttgaata aaaaagctag gcatgtgtga   1200
tgcgcactaa cacgtgccat tccttcttca gaatgctgtg tcctctgaag aaaccaatga   1260
ctttaaacaa gaggtaagtt ctcattttca atcagaggcc catcatgcct tgaagagatg   1320
aaagaaggca ttgcctggat tctcttctga tgaaatttca ttagcaagtt ttccagctaa   1380
ttggcagtct aaaacttgct cataaataaa acatgtattt actaaatatc agaaatacta   1440
ggtttcctcg gataacctaa aagccatggt atgtactgtg aatgcaaaga ttctgaaact   1500
aaataaaaag aaagatagta aaagactaat gtgctataaa ggctaaggga aaataaaaac   1560
ccatatatta attttcccgg ccatcttaat tttcagaccc ttccaagtaa gtccaacgaa   1620
agccatgacc acatggatga tatggatgat gaagatgatg atgaccatgt ggacagccag   1680
gactccattg actcgaacga ctctgatgat gtagatgaca ctgatgattc tcaccagtct   1740
gatgagtctc accattctga tgaatctgat gaactggtca ctgatttttcc cacggacctg   1800
ccagcaaccg aagttttcac tccagttgtc cccacagtag acacatatga tggccgaggt   1860
gatagtgtgg tttatggact gaggtcaaaa tctaagaagt ttcgcagacc tgacatccag   1920
gtaaatcctt taacagacac acctgatggt tctgactagc gctcaagtct aggaaaccac   1980
agtttgcata ttcattcatt cattcatcca ttcattcatc cattcagcaa gaattcattc   2040
atattctact ttatgaccat tgaatacaaa tcttttttctg cttggcggtt tttgtaagtc   2100
```

                                332

```
tacataattt ctctctagat ttgattctca aacacaattc tactttttga aatcctggat    2160
caaagtaaca tgctagtatt atttcagcca gatttagaca attttttagta taagatgacc    2220
taaaagctag agagtggaaa aggattacca tattcccatc cctagccgtt catataatta    2280
ttcttcattt gtgccgtgat tcagtaccct gatgctacag acgaggacat cacctcacac    2340
atggaaagcg aggagttgaa tggtgcatac aaggccatcc ccgttgccca ggacctgaac    2400
gcgccttctg attgggacag ccgtgggaag gacagttatg aaacgagtca gctggatgac    2460
cagagtgctg aaacccacag ccacaagcag tccagattat ataagcggaa agccaatgat    2520
gagagcaatg agcattccga tgtgattgat agtcaggaac tttccaaagt cagccgtgaa    2580
ttccacagcc atgaatttca cagccatgaa gatatgctgg ttgtagaccc caaaagtaag    2640
gaagaagata aacacctgaa atttcgtatt tctcatgaat tagatagtgc atcttctgag    2700
gtcaattaaa aggagaaaaa atacaatttc tcactttgca tttagtcaaa agaaaaaatg    2760
ctttatagca aaatgaaaga gaacatgaaa tgcttctttc tcagtttatt ggttgaatgt    2820
gtatctattt gagtctggaa ataactaatg tgtttgataa ttagtttagt ttgtggcttc    2880
atggaaactc cctgtaaaca aaagcttcag ggttatgtct atgttcattc tatagaagaa    2940
atgcaaacta tcactgtatt ttaatatttg ttattctctc atgaatagaa atttatgtag    3000
aagcaaacaa aatactttta cccacttaaa aagagaatat aacattttat gtcactataa    3060
tcttttgttt tttaagttag tgtatatttt gttgtgatta tcttttgtgg tgtgaataaa    3120
tcttttatct tgaatgtaat aag                                          3143
```

<210> 558
<211> 927
<212> DNA
<213> Homo sapiens

<400> 558
```
ggaagtttag gttaactgtc ttaaatttcc aaagctgtaa tcattatttt cattctcaaa      60
gtgatggcct tgtgtttgc tcctctcctc cagggccaga ctgagcccag gttgatttca     120
ggcggacacc aatagactcc acagcagctc caggagccca gacaccggcg gccagaagca     180
aggctaggag ctgctgcagc catgtcggcc ctcagcctcc tcattctggg cctgctcacg     240
gcagtgccac ctgccagctg tcagcaaggc ctggggaacc ttcagccctg gatgcagggc     300
cttatcgcgg tggccgtgtt cctggtcctc gttgcaatcg cctttgcagt caaccacttc     360
tggtgccagg aggagccgga gcctgcacac atgatcctga ccgtcggaaa caaggcagat     420
ggagtcctgg tgggaacaga tggaaggtac tcttcgatgg cggccagttt caggtccagt     480
gagcatgaga atgcctatga gaatgtgccc gaggaggaag gcaaggtccg cagcaccccg     540
atgtaacctt ctctgtggct ccaaccccaa gactcccagg cacatgggat ggatgtccag     600
tgctaccacc caagcccct ccttctttgt gtggaatctg caatagtggg ctgactccct     660
ccagccccat gccggcccta cccgcccttg aagtatagcc agccaaggtt ggagctcaga     720
ccgtgtctag gttggggctc ggctgtggcc ctggggtctc ctgctcagct cagaagagcc     780
ttctggagag acagtcagc tgagcacctc ccatcctgct cacacgtcct tccccataac     840
tatggaaatg gccctaattt ctgtgaaata aagacttttt gtatttctgg ggctgaggct     900
cagcaacagc ccctcaggct tccaaaa                                        927
```

<210> 559
<211> 1594
<212> DNA
<213> Homo sapiens

<400> 559
```
gagaggaaca tgaactgacg agtaaacatg tatggaaatt attctcactt catgaagttt      60
cccgcaggct atggaggctc ccctggccac actggctcta catccatgag cccatcagca     120
```

333
```

```
gccttgtcca cagggaagcc aatggacagc caccccagct acacagatac cccagtgagt    180
gccccacgga ctctgagtgc agtggggacc cccctcaatg ccctgggctc tccatatcga    240
gtcatcacct ctgccatggg cccaccctca ggagcacttg cagcgcctcc aggaatcaac    300
ttggttgccc cacccagctc tcagctaaat gtggtcaaca gtgtcagcag ttcagaggac    360
atcaagccct taccagggct tcccgggatt ggaaacatga actacccatc caccagcccc    420
ggatctctgg ttaaacacat ctgtgctatc tgtggagaca gatcctcagg aaagcactac    480
ggggtataca gttgtgaagg ctgcaaaggg ttcttcaaga ggacgataag gaaggacctc    540
atctacacgt gtcgggataa taaagactgc ctcattgaca agcgtcagcg caaccgctgc    600
cagtactgtc gctatcagaa gtgccttgtc atgggcatga gagggaagc tgtgcaagaa     660
gaaagacaga ggagccgaga gcgagctgag agtgaggcag aatgtgctac cagtggtcat    720
gaagacatgc ctgtggagag gattctagaa gctgaacttg ctgttgaacc aaagacagaa    780
tcctatggtg acatgaatat ggagaactcg acaaatgacc ctgttaccaa catatgtcat    840
gctgctgaca agcagctttt caccctcgtt gaatgggcca agcgtattcc ccacttctct    900
gacctcacct tggaggacca ggtcattttg cttcgggcag ggtggaatga attgctgatt    960
gcctctttct cccaccgctc agtttccgtg caggatggca tccttctggc cacgggttta   1020
catgtccacc ggagcagtgc ccacagtgct ggggtcggct ccatctttga cagagttcta   1080
actgagctgg tttccaaaat gaaagacatg cagatggaca agtcggaact gggatgcctg   1140
cgagccattg tactctttaa cccagatgcc aagggcctgt ccaacccctc tgaggtggag   1200
actctgcgag agaaggttta tgccaccctt gaggcctaca ccaagcagaa gtatccggaa   1260
cagccaggca ggtttgccaa gctgctgctg cgcctcccag ctctgcgttc cattggcttg   1320
aaatgcctgg agcacctctt cttcttcaag ctcatcgggg acaccccat tgacaccttc    1380
ctcatggaga tgttggagac cccgctgcag atcacctgag ccccaccagc cacagcctcc   1440
ccacccagga tgacccctgg gcaggtgtgt gtggaccccc accctgcact ttcctccacc   1500
tcccaccctg acccccttcc tgtccccaaa atgtgatgct tataataaag aaaacctttc   1560
tacaaaaaaa aaaaaaaaa aaaaaccgga attc                                1594

<210>    560
<211>    233
<212>    DNA
<213>    Homo sapiens

<400>    560
aacattagga aaagaagtaa aaaaaaactt gtatggaatt cctacgtagt caattgtcta     60
ataggttttg tttatggtac ttcagagttg ctcaaactat gaaacctaaa atacaacaca    120
gtgactttc tcttgagttg gcacatctaa atgaacaatt cacaaatgtc attaaaaggt     180
actgtttgag aaatacatat ttaaaattaa aatgcatcaa aagatatgaa atc          233

<210>    561
<211>    577
<212>    DNA
<213>    Homo sapiens

<400>    561
gagctccgac ggcactgacg gccatggcgc gttcgaacct cccgctggcg ctgggcctgg     60
ccctggtcgc attctgcctc ctggcgctgc cacgcgatgc ccgggcccgg ccgcaggagc    120
gcatggtcgg agaactccgg gacctgtcgc ccgacgaccc gcaggtgcag aaggcggcgc    180
aggcggccgt ggccagctac aacatgggca gcaacagcat ctactacttc cgagacacgc    240
acatcatcaa ggcgcagagc cagctggtgg ccggcatcaa gtacttcctg acgatggaga    300
tggggagcac agactgccgc aagaccaggg tcactggaga ccacgtcgac ctcaccactt    360
```

334

```
gcccctggc agcaggggcg cagcaggaga agctgcgctg tgactttgag gtccttgtgg      420
ttccctggca gaactcctct cagctcctaa agcacaactg tgtgcagatg tgataagtcc      480
ccgagggcga aggccattgg gtttggggcc atggtggagg gcacttcagg tccgtgggcc      540
gtatctgtca caataaatgg ccagtgctgc ttcttgc                              577

<210>   562
<211>   853
<212>   DNA
<213>   Homo sapiens

<400>   562
agtggcaccg ctgactgccg agaggaagct cgcctctgcc cggctgccct cttgtagtcc       60
gccggcgagg ggcagttctc ggtgaggagg aagagagcag cggacggcac agcacccgcg      120
cgggccctcc cacaacagct ccagctggca gcatcacttc ccgccaattt atccaacttc      180
tgccaaggct ctgaaatgcc aacaacgtcg aggcctgcac ttgatgtcaa gggtggcacc      240
tcacctgcga aggaggatgc caaccaagag atgagctccg tggcctactc caaccttgcg      300
gtgaaagatc gcaaagcagt ggccattctg cactaccctg gggtagcctc aaatggaacc      360
aaggccagtg gggctcccac tagttcctcg ggatctccaa taggctctcc tacaaccacc      420
cctcccacta aacccccatc cttcaacctg caccccgccc ctcacttgct ggctagtatg      480
cagctgcaga aacttaatag ccagtatcag gggatggctg ctgccactcc aggccaaccc      540
ggggaggcag gacccctgca aaactgggac tttggggccc aggcgggagg ggcagaatca      600
ctctctcctt ctgctggtgc ccagagccct gctatcatcg attcggaccc agtggatgag      660
gaagtgctga tgtcgctggt ggtggaactg gggttggacc gagccaatga gcttccggag      720
ctgtggctgg ggcagaatga gtttgacttc actgcggact ttccatctag ctgctaatgc      780
caagtgtccc taaagatgga ggaataaagc caccaattct gttgtaaata aaaataaagt      840
tacttacaaa gag                                                        853

<210>   563
<211>   1915
<212>   DNA
<213>   Homo sapiens

<400>   563
ttagagccgg gtaggggagc gcagcggcca gatacctcag cgctacctgg cggaactgga       60
tttctctccc gcctgccggc ctgcctgcca cagccggact ccgccactcc ggtagcctca      120
tggctgcaac ctgtgagatt agcaacattt ttagcaacta cttcagtgcg atgtacagct      180
cggaggactc caccctggcc tctgttcccc ctgctgccac ctttggggcc gatgacttgg      240
tactgaccct gagcaacccc cagatgtcat tggaggggtac agagaaggcc agctggttgg      300
gggaacagcc ccagttctgg tcgaagacgc aggttctgga ctggatcagc taccaagtgg      360
agaagaacaa gtacgacgca agcgccattg acttctcacg atgtgacatg gatggcgcca      420
ccctctgcaa ttgtgccctt gaggagctgc gtctggtctt tgggcctctg ggggaccaac      480
tccatgccca gctgcgagac ctcacttcca gctcttctga tgagctcagt tggatcattg      540
agctgctgga gaaggatggc atggccttcc aggaggccct agacccaggg ccctttgacc      600
agggcagccc ctttgcccag gagctgctgg acgacggtca gcaagccagc ccctaccacc      660
ccggcagctg tggcgcagga gccccctccc ctggcagctc tgacgtctcc accgcaggga      720
ctggtgcttc tcggagctcc cactcctcag actccggtgg aagtgacgtg gacctggatc      780
ccactgatgg caagctcttc cccagcgatg gttttcgtga ctgcaagaag ggggatccca      840
agcacgggaa gcggaaacga ggccggcccc gaaagctgag caaagagtac tgggactgtc      900
tcgagggcaa gaagagcaag cacgcgccca gaggcaccca cctgtgggag ttcatccggg      960
acatcctcat ccacccggag ctcaacgagg gcctcatgaa gtgggagaat cggcatgaag     1020
```

335

```
gcgtcttcaa gttcctgcgc tccgaggctg tggcccaact atggggccaa aagaaaaaga   1080
acagcaacat gacctacgag aagctgagcc gggccatgag gtactactac aaacgggaga   1140
tcctggaacg ggtggatggc cggcgactcg tctacaagtt tggcaaaaac tcaagcggct   1200
ggaaggagga agaggttctc cagagtcgga actgagggtt ggaactatac ccgggaccaa   1260
actcacggac cactcgaggc ctgcaaacct tcctgggagg acaggcaggc cagatggccc   1320
ctccactggg gaatgctccc agctgtgctg tggagagaag ctgatgtttt ggtgtattgt   1380
cagccatcgt cctgggactc ggagactatg gcctcgcctc cccaccctcc tcttggaatt   1440
acaagccctg gggtttgaag ctgactttat agctgcaagt gtatctcctt ttatctggtg   1500
cctcctcaaa cccagtctca gacactaaat gcagacaaca ccttcctcct gcagacacct   1560
ggactgagcc aaggaggcct gggggaggccc tagggggagca ccgtgatgga gaggacagag   1620
caggggctcc agcaccttct ttctggactg gcgttcacct ccctgctcag tgcttgggct   1680
ccacgggcag gggtcagagc actccctaat ttatgtgcta tataaatatg tcagatgtac   1740
atagagatct atttttttcta aaacattccc ctccccactc ctctcccaca gagtgctgga   1800
ctgttccagg ccctccagtg ggctgatgct gggacccttta ggatggggct cccagctcct   1860
ttctcctgtg aatggaggca gagacctcca ataaagtgcc ttctgggctt tttct         1915
```

<210> 564
<211> 8448
<212> DNA
<213> Homo sapiens

<400> 564
```
gcagtggttt ctcctccttc ctcccaggaa gggccaggaa aatggccctg gtcctggaga     60
tcttcaccct gctggcctcc atctgctggg tgtcggccaa tatcttcgag taccaggttg    120
atgcccagcc ccttcgtccc tgtgagctgc agagggaaac ggcctttctg aagcaagcag    180
actacgtgcc ccagtgtgca gaggatggca gcttccagac tgtccagtgc cagaacgacg    240
gccgctcctg ctggtgtgtg ggtgccaacg gcagtgaagt gctgggcagc aggcagccag    300
gacggcctgt ggcttgtctg tcattttgtc agctacagaa acagcagatc ttactgagtg    360
gctacattaa cagcacagac acctcctacc tccctcagtg tcaggattca ggggactacg    420
cgcctgttca gtgtgatgtg cagcatgtcc agtgctggtg tgtggacgca gaggggatgg    480
aggtgtatgg gacccgccag ctggggaggc caaagcgatg tccaaggagc tgtgaaataa    540
gaaatcgtcg tcttctccac ggggtgggag ataagtcacc accccagtgt tctgcggagg    600
gagagtttat gcctgtccag tgcaaatttg tcaacaccac agacatgatg attttttgatc    660
tggtccacag ctacaacagg tttccagatg catttgtgac cttcagttcc ttccagagga    720
ggttccctga ggtatctggg tattgccact gtgctgacag ccaagggcgg gaactggctg    780
agacaggttt ggagttgtta ctggatgaaa tttatgacac catttttgct ggcctggacc    840
ttccttccac cttcactgaa accaccctgt accggatact gcagagacgg ttcctcgcag    900
ttcaatcagt catctctggc agattccgat gccccacaaa atgtgaagtg gagcggttta    960
cagcaaccag ctttggtcac ccctatgttc caagctgccg ccgaaatggc gactatcagg   1020
cggtgcagtg ccagacggaa gggccctgct ggtgtgtgga cgcccagggg aaggaaatgc   1080
atggaacccg gcagcaaggg gagccgccat cttgtgctga aggccaatct tgtgcctccg   1140
aaaggcagca ggccttgtcc agactctact ttgggacctc aggctacttc agccagcacg   1200
acctgttctc ttccccagag aaaagatggg cctctccaag agtagccaga tttgccacat   1260
cctgcccacc cacgatcaag gagctctttg tggactctgg gcttctccgc ccaatggtgg   1320
agggacagag ccaacagttt tctgtctcag aaaatcttct caaagaagcc atccgagcaa   1380
ttttttccctc ccgagggctg gctcgtcttg cccttcagtt taccaccaac ccaaagagac   1440
tccagcaaaa ccttttttgga gggaaatttt tggtgaatgt tggccagttt aacttgtctg   1500
gagcccttgg cacaagaggc acatttaact tcagtcaatt tttccagcaa cttggtcttg   1560
```
```
                                        336
```

```
caagcttctt gaatggaggg agacaagaag atttggccaa gccactctct gtgggattag   1620
attcaaattc ttccacagga acccctgaag ctgctaagaa ggatggtact atgaataagc   1680
caactgtggg cagctttggc tttgaaatta acctacaaga gaaccaaaat gccctcaaat   1740
tccttgcttc tctcctggag cttccagaat tccttctctt cttgcaacat gctatctctg   1800
tgccagaaga tgtggcaaga gatttaggtg atgtgatgga aacggtactc gactcccaga   1860
cctgtgagca gacacctgaa aggctatttg tcccatcatg cacgacagaa ggaagctatg   1920
aggatgtcca atgctttttcc ggagagtgct ggtgtgtgaa ttcctggggc aaagagcttc   1980
caggctcaag agtcagagat ggacagccaa ggtgccccac agactgtgaa aagcaaaggg   2040
ctcgcatgca aagcctcatg ggcagccagc ctgctggctc caccttgttt gtccctgctt   2100
gtactagtga gggacatttc ctgcctgtcc agtgcttcaa ctcagagtgc tactgtgttg   2160
atgctgaggg tcaggccatt cctggaactc gaagtgcaat agggaagccc aagaaatgcc   2220
ccacgccctg tcaattacag tctgagcaag ctttcctcag gacggtgcag gccctgctct   2280
ctaactccag catgctaccc accctttccg acacctacat cccacagtgc agcaccgatg   2340
ggcagtggag acaagtgcaa tgcaatgggc ctcctgagca ggtcttcgag ttgtaccaac   2400
gatgggaggc tcagaacaag ggccaggatc tgacgcctgc caagctgcta gtgaagatca   2460
tgagctacag agaagcagct tccggaaact tcagtctctt tattcaaagt ctgtatgagg   2520
ctggccagca agatgtcttc ccggtgctgt cacaataccc ttctctgcaa gatgtcccac   2580
tagcagcact ggaagggaaa cggccccagc ccagggagaa tatcctcctg gagccctacc   2640
tcttctggca gatcttaaat ggccaactca gccaataccc ggggtcctac tcagacttca   2700
gcactccttt ggcacatttt gatcttcgga actgctggtg tgtggatgag gctggccaag   2760
aactggaagg aatgcggtct gagccaagca agctcccaac gtgtcctggc tcctgtgagg   2820
aagcaaagct ccgtgtactg cagttcatta gggaaacgga agagattgtt tcagcttcca   2880
acagttctcg gttccctctg ggggagagtt tcctggtggc caagggaatc cggctgagga   2940
atgaggacct cggccttcct ccgctcttcc cgccccggga ggctttcgcg gagtttctgc   3000
gtgggagtga ttacgccatt cgcctggcgg ctcagtctac cttaagcttc tatcagagac   3060
gccgcttttc cccggacgac tcggctggag catccgccct tctgcggtcg ggcccctaca   3120
tgccacagtg tgatgcgttt ggaagttggg agcctgtgca gtgccacgct gggactgggc   3180
actgctggtg tgtagatgag aaaggagggt tcatccctgg ctcactgact gcccgctctc   3240
tgcagattcc acagtgcccg acaacctgcg agaaatctcg aaccagtggg ctgctttcca   3300
gttggaaaca ggctagatcc caagaaaacc catctccaaa agacctgttc gtcccagcct   3360
gcctagaaac aggagaatat gccaggctgc aggcatcggg ggctggcacc tggtgtgtgg   3420
accctgcatc aggagaagag ttgcggcctg gctcgagcag cagtgcccag tgcccaagcc   3480
tctgcaatgt gctcaagagt ggagtcctct ctaggagagt cagcccaggc tatgtcccag   3540
cctgcagggc agaggatggg ggcttttccc cagtgcaatg tgaccaggcc caggcagct   3600
gctggtgtgt catggacagc ggagaagagg tgcctgggac gcgcgtgacc ggggggccagc   3660
ccgcctgtga gcccgcgg tgtccgctgc cattcaacgc gtcggaggtg gttggtggaa   3720
caatcctgtg tgagacaatc tcgggcccca caggctctgc catgcagcag tgccaattgc   3780
tgtgccgcca aggctcctgg agcgtgtttc caccagggcc attgatatgt agcctggaga   3840
gcggacgctg ggagtcacag ctgcctcagc cccgggcctg ccaacggccc cagctgtggc   3900
agaccatcca gacccaaggg cactttcagc tccagctccc gccgggcaag atgtgcagtg   3960
ctgactacgc gggtttgctg cagactttcc aggttttcat attggatgag ctgacagccc   4020
gcggcttctg ccagatccag gtgaagactt ttggcaccct ggtttccatt cctgtctgca   4080
acaactcctc tgtgcaggtg ggttgtctga ccagggagcg tttaggagtg aatgttacat   4140
ggaaatcacg gcttgaggac atcccagtgg cttctcttcc tgacttacat gacattgaga   4200
gagccttggt gggcaaggat ctccttgggc gcttcacaga tctgatccag agtggctcat   4260
tccagcttca tctggactcc aagacgttcc cagcggaaac catccgcttc ctccaagggg   4320
accactttgg cacctctcct aggacacggt ttggggtgctc ggaaggattc taccaagtct   4380
tgacaagtga ggccagtcag gacggactgg gatgcgttaa gtgccatgaa ggaagctatt   4440
```

337

```
cccaagatga ggaatgcatt ccttgtcctg ttggattcta ccaagaacag gcagggagct    4500
tggcctgtgt cccatgtcct gtgggcagaa cgaccatttc tgccggagct ttcagccaga    4560
ctcactgtgt cactgactgt cagaggaacg aagcaggcct gcaatgtgac cagaatggcc    4620
agtatcgagc cagccagaag gacaggggca gtgggaaggc cttctgtgtg gacggcgagg    4680
ggcggaggct gccatggtgg gaaacagagg cccctcttga ggactcacag tgtttgatga    4740
tgcagaagtt tgagaaggtt ccagaatcaa aggtgatctt cgacgccaat gctcctgtgg    4800
ctgtcagatc caaagttcct gattctgagt tccccgtgat gcagtgcttg acagattgca    4860
cagaggacga ggcctgcagc ttcttcaccg tgtccacgac ggagccagag atttcctgtg    4920
atttctatgc ttggacaagt gacaatgttg cctgcatgac ttctgaccag aaacgagatg    4980
cactggggaa ctcaaaggcc accagctttg gaagtcttcg ctgccaggtg aaagtgagga    5040
gccatggtca agattctcca gctgtgtatt tgaaaaaggg ccaaggatcc accacaacac    5100
ttcagaaacg ctttgaaccc actggtttcc aaaacatgct ttctggattg tacaacccca    5160
ttgtgttctc agcctcagga gccaatctaa ccgatgctca cctcttctgt cttcttgcat    5220
gcgaccgtga tctgtgttgc gatggcttcg tcctcacaca ggttcaagga ggtgccatca    5280
tctgtgtgggtt gctgagctca cccagtgtcc tgctttgtaa tgtcaaagac tggatggatc    5340
cctctgaagc ctgggctaat gctacatgtc ctggtgtgac atatgaccag gagagccacc    5400
aggtgatatt gcgtcttgga gaccaggagt tcatcaagag tctgacaccc ttagaaggaa    5460
ctcaagacac ctttaccaat tttcagcagg tttatctctg gaaagattct gacatggggt    5520
ctcggcctga gtctatggga tgtagaaaaa acacagtgcc aaggccagca tctccaacag    5580
aagcaggttt gacaacagaa cttttctccc ctgtggacct caaccaggtc attgtcaatg    5640
gaaatcaatc actatccagc cagaagcact ggctttttcaa gcacctgttt tcagcccagc    5700
aggcaaacct atggtgcctt tctcgttgtg tgcaggagca ctctttctgt cagctcgcag    5760
agataacaga gagtgcatcc ttgtacttca cctgcaccct ctacccagag gcacaggtgt    5820
gtgatgacat catggagtcc aatacccagg gctgcagact gatcctgcct cagatgccaa    5880
aggccctgtt ccggaagaaa gttatactgg aagataaagt gaagaacttt tacactcgcc    5940
tgccgttcca aaaactgatg gggatatcca ttagaaataa agtgcccatg tctgaaaaat    6000
ctatttctaa tgggttcttt gaatgtgaac gacggtgcga tgcggaccca tgctgcactg    6060
gctttggatt tctaaatgtt tcccagttaa aaggaggaga ggtgacatgt ctcactctga    6120
acagcttggg aattcagatg tgcagtgagg agaatggagg agcctggcgc attttggact    6180
gtggctctcc tgacattgaa gtccacacct atccttcgg atggtaccag aagcccattg    6240
ctcaaaataa tgctcccagt ttttgcccctt tggttgttct gccttccctc acagagaaag    6300
tgtctctgga atcgtggcag tccctggccc tctcttcagt ggttgttgat ccatccatta    6360
ggcactttga tgttgcccat gtcagcactg ctgccaccag caatttctct gctgtccgag    6420
acctctgttt gtcggaatgt tcccaacatg aggcctgtct catcaccact ctgcaaaccc    6480
aactcggggc tgtgagatgt atgttctatg ctgatactca aagctgcaca catagtctgc    6540
agggtcggaa ctgccgactt ctgcttcgtg aagaggccac ccacatctac cggaagccag    6600
gaatctctct gctcagctat gaggcatctg taccttctgt gcccatttcc acccatggcc    6660
ggctgctggg caggtcccag gccatccagg tgggtacctc atggaagcaa gtggaccagt    6720
tccttggagt tccatatgct gccccgcccc tggcagagag gcacttccag gcaccagagc    6780
ccttgaactg gacaggctcc tgggatgcca gcaagccaag ggccagctgc tggcagccag    6840
gcaccagaac atccacgtct cctggagtca gtgaagattg tttgtatctc aatgtgttca    6900
tccctcagaa tgtggcccct aacgcgtctg tgctggtgtt cttccacaac accatggaca    6960
gggaggagag tgaaggatgg ccggctatcg acggctcctt cttggctgct gttggcaacc    7020
tcatcgtggt cactgccagc taccgagtgg gtgtcttcgg cttcctgagt tctggatccg    7080
gagaggtgag tggcaactgg gggctgctgg accaggtggc ggctctgacc tgggtgcaga    7140
cccacatccg aggatttggc ggggaccctc ggcgcgtgtc cctggcagca gaccgtggcg    7200
gggctgatgt ggccagcatc caccttctca cggccagggc caccaactcc caactttttcc    7260
```

338

```
ggagagctgt gctgatggga ggctccgcac tctccccggc cgccgtcatc agccatgaga   7320
gggctcagca gcaggcaatt gctttggcaa aggaggtcag ttgccccatg tcatccagcc   7380
aagaagtggt gtcctgcctc cgccagaagc ctgccaatgt cctcaatgat gcccagacca   7440
agctcctggc cgtgagtggc cctttccact actggggtcc tgtgatcgat ggccacttcc   7500
tccgtgagcc tccagccaga gcactgaaga ggtctttatg ggtagaggtc gatctgctca   7560
ttgggagttc tcaggacgac gggctcatca acagagcaaa ggctgtgaag caatttgagg   7620
aaagtcgagg ccggaccagt agcaaaacag ccttttacca ggcactgcag aattctctgg   7680
gtggcgagga ctcagatgcc cgcgtcgagg ctgctgctac atggtattac tctctggagc   7740
actccacgga tgactatgcc tccttctccc gggctctgga gaatgccacc cgggactact   7800
ttatcatctg ccctataatc gacatggcca gtgcctgggc aaagagggcc cgaggaaacg   7860
tcttcatgta ccatgctcct gaaaactacg gccatggcag cctggagctg ctggcggatg   7920
ttcagtttgc cttggggctt cccttctacc cagcctacga ggggcagttt tctctggagg   7980
agaagagcct gtcgctgaaa atcatgcagt acttttccca cttcatcaga tcaggaaatc   8040
ccaactaccc ttatgagttc tcacggaaag tacccacatt gcaacccccc tggcctgact   8100
ttgtaccccg tgctggtgga gagaactaca aggagttcag tgagctgctc cccaatcgac   8160
agggcctgaa gaaagccgac tgctccttct ggtccaagta catctcgtct ctgaagacat   8220
ctgcagatgg agccaagggc gggcagtcag cagagagtga agaggaggag ttgacggctg   8280
gatctgggct aagagaagat ctcctaagcc tccaggaacc aggctctaag acctacagca   8340
agtgaccagc ccttgagctc cccaaaaacc tcacccgagg ctgcccacta tggtcatctt   8400
tttctctaaa atagttactt accttcaata aagtatctac atgcggtg             8448
```

<210> 565
<211> 607
<212> DNA
<213> Homo sapiens

<400> 565
```
ggactgttga agacaggtct ccacacacag ctccagcagc cacatttgca accttggcca   60
tctgtccaga acctgctccc acctcaggcc caggccaacc gtgcactgct gcaatgggct   120
ctgagctgga gacggcgatg gagaccctca tcaacgtgtt ccacgcccac tcgggcaaag   180
aggggggacaa gtacaagctg agcaagaagg agctgaaaga gctgctgcag acggagctct   240
ctggcttcct ggatgcccag aaggatgtgg atgctgtgga caaggtgatg aaggagctag   300
acgagaatgg agacggggag gtggacttcc aggagtatgt ggtgcttgtg gctgctctca   360
cagtggcctg taacaatttc ttctgggaga cagttgagc agacagccac attgggcagc   420
gcccttcctc tccaccctcc cagacctgcc tcttcccct gcttccacct caccccactt   480
atccctctcc ataaccccac ccttgcccac cccacccca ccccaccaa gggcgcaaga   540
gtagcggtcc aagcctgcaa ctcatctttc attaaaggct tctctctcac cagcaaaaaa   600
aaaaaaa                                                             607
```

<210> 566
<211> 4244
<212> DNA
<213> Homo sapiens

<400> 566
```
ggcgcagtag cagcgagcag cagagtccgc acgctccggc gaggggcaga agagcgcgag   60
ggagcgcggg gcagcagaag cgagagccga gcgcggaccc agccaggacc cacagccctc   120
cccagctgcc caggaagagc cccagccatg gaacaccagc tcctgtgctg cgaagtggaa   180
accatccgcc gcgcgtaccc cgatgccaac ctcctcaacg accgggtgct gcgggccatg   240
ctgaaggcgg aggagacctg cgcgccctcg gtgtcctact tcaaatgtgt gcagaaggag   300
```

                                    339

```
gtcctgccgt ccatgcggaa gatcgtcgcc acctggatgc tggaggtctg cgaggaacag    360
aagtgcgagg aggaggtctt cccgctggcc atgaactacc tggaccgctt cctgtcgctg    420
gagcccgtga aaaagagccg cctgcagctg ctggggggcca cttgcatgtt cgtggcctct   480
aagatgaagg agaccatccc cctgacggcc gagaagctgt gcatctacac cgacaactcc    540
atccggcccg aggagctgct gcaaatggag ctgctcctgg tgaacaagct caagtggaac    600
ctggccgcaa tgaccccgca cgatttcatt gaacacttcc tctccaaaat gccagaggcg    660
gaggagaaca aacagatcat ccgcaaacac gcgcagacct cgttgccct ctgtgccaca     720
gatgtgaagt tcatttccaa tccgccctcc atggtggcag cggggagcgt ggtggccgca    780
gtgcaaggcc tgaacctgag gagccccaac aacttcctgt cctactaccg cctcacacgc    840
ttcctctcca gagtgatcaa gtgtgaccca gactgcctcc gggcctgcca ggagcagatc    900
gaagccctgc tggagtcaag cctgcgccag gcccagcaga acatggaccc caaggccgcc    960
gaggaggagg aagaggagga ggaggaggtg gacctggctt gcacacccac cgacgtgcgg   1020
gacgtggaca tctgagggcg ccaggcaggc gggcgccacc gccacccgca gcgagggcgg   1080
agccggcccc aggtgctcca ctgacagtcc ctcctctccg gagcatttg ataccagaag    1140
ggaaagcttc attctccttg ttgttggttg ttttttcctt tgctctttcc cccttccatc    1200
tctgacttaa gcaaaagaaa aagattaccc aaaaactgtc tttaaaagag agagagagaa    1260
aaaaaaaata gtatttgcat aaccctgagc ggtggggggag gagggttgtg ctacagatga   1320
tagaggattt tataccccaa taatcaactc gttttatat taatgtactt gtttctctgt     1380
tgtaagaata ggcattaaca caaaggaggc gtctcgggag aggattaggt tccatccttt    1440
acgtgtttaa aaaaaagcat aaaaacattt taaaaacata gaaaaattca gcaaaccatt    1500
tttaaagtag aagagggttt taggtagaaa aacatattct tgtgcttttc ctgataaagc    1560
acagctgtag tggggttcta ggcatctctg tactttgctt gctcatatgc atgtagtcac    1620
tttataagtc attgtatgtt attatattcc gtaggtagat gtgtaacctc ttcaccttat    1680
tcatggctga agtcacctct tggttacagt agcgtagcgt ggccgtgtgc atgtcctttg    1740
cgcctgtgac caccacccca acaaaccatc cagtgacaaa ccatccagtg gaggtttgtc    1800
gggcaccagc cagcgtagca gggtcgggaa aggccacctg tcccactcct acgatacgct    1860
actataaaga gaagacgaaa tagtgacata atatattcta tttttatact cttcctattt    1920
ttgtagtgac ctgtttatga gatgctggtt ttctacccaa cggccctgca gccagctcac    1980
gtccaggttc aacccacagc tacttggttt gtgttcttct tcatattcta aaaccattcc    2040
atttccaagc actttcagtc caataggtgt aggaaatagc gctgtttttg ttgtgtgtgc    2100
agggagggca gttttctaat ggaatggttt gggaatatcc atgtacttgt ttgcaagcag    2160
gactttgagg caagtgtggg ccactgtggt ggcagtggag gtggggtgtt tgggaggctg    2220
cgtgccagtc aagaagaaaa aggtttgcat tctcacattg ccaggatgat aagttccttt    2280
ccttttcttt aaagaagttg aagtttagga atcctttggt gccaactggt gtttgaaagt    2340
agggacctca gaggtttacc tagagaacag gtggttttta agggttatct tagatgtttc    2400
acaccggaag gtttttaaac actaaaatat ataatttata gttaaggcta aaaagtatat    2460
ttattgcaga ggatgttcat aaggccagta tgatttataa atgcaatctc cccttgattt    2520
aaacacacag atacacacac acacacacac acacacacaa accttctgcc tttgatgtta    2580
cagatttaat acagtttatt tttaaagata gatcctttta taggtgagaa aaaaacaatc    2640
tggaagaaaa aaaccacaca aagacattga ttcagcctgt ttggcgtttc ccagagtcat    2700
ctgattggac aggcatgggt gcaaggaaaa ttagggtact caacctaagt tcggttccga    2760
tgaattctta tccctgccc cttccttaa aaaacttagt gacaaaatag acaatttgca      2820
catcttggct atgtaattct tgtaattttt atttaggaag tgttgaaggg aggtggcaag    2880
agtgtggagg ctgacgtgtg agggaggaca ggcgggagga ggtgtgagga ggaggctccc    2940
gaggggaagg ggcggtgccc acaccgggga caggccgcag ctccattttc ttattgcgct    3000
gctaccgttg acttccaggc acggtttgga aatattcaca tcgcttctgt gtatctcttt    3060
cacattgttt gctgctattg gaggatcagt tttttgtttt acaatgtcat atactgccat    3120
```

340

```
gtactagttt  tagttttctc  ttagaacatt  gtattacaga  tgcctttttt  gtagtttttt        3180
tttttttat   gtgatcaatt  ttgacttaat  gtgattactg  ctctattcca  aaaaggttgc        3240
tgtttcacaa  tacctcatgc  ttcacttagc  catggtggac  ccagcgggca  ggttctgcct        3300
gctttggcgg  gcagacacgc  gggcgcgatc  ccacacaggc  tggcgggggc  cggccccgag        3360
gccgcgtgcg  tgagaaccgc  gccggtgtcc  ccagagacca  ggctgtgtcc  ctcttctctt        3420
ccctgcgcct  gtgatgctgg  gcacttcatc  tgatcggggg  cgtagcatca  tagtagtttt        3480
tacagctgtg  ttatwctttg  cgtgtagcta  tggaagttgc  ataattatta  ttattattat        3540
tataacaagt  gtgtcttacg  tgccaccacg  gcgttgtacc  tgtaggactc  tcattcggga        3600
tgattggaat  agcttctgga  atttgttcaa  gttttgggta  tgtttaatct  gttatgtact        3660
agtgttctgt  ttgttattgt  tttgttaatt  acaccataat  gctaatttaa  agagactcca        3720
aatctcaatg  aagccagctc  acagtgctgt  gtgccccggt  cacctagcaa  gctgccgaac        3780
caaaagaatt  tgcaccccgc  tgcgggccca  cgtggttggg  gccctgccct  ggcagggtca        3840
tcctgtgctc  ggaggccatc  tcgggcacag  gcccacccg   ccccacccct  ccagaacacg        3900
gctcacgctt  acctcaacca  tcctggctgc  ggcgtctgtc  tgaaccacgc  ggggccttg         3960
agggacgctt  tgtctgtcgt  gatggggcaa  gggcacaagt  cctggatgtt  gtgtgtrtcg        4020
agaggccaaa  ggctggtggc  aagtgcacgg  ggcacagcgg  agtctgtcct  gtgacgcgca        4080
agtctgaggg  tctgggcggc  gggcggctgg  gtctgtgcat  ttctggttgc  accgcggcgc        4140
ttcccagcac  caacatgtaa  ccggcatgtt  tccagcagaa  gacaaaaaga  caaacatgaa        4200
agtctagaaa  taaaactggt  aaaaccccaa  aaaaaaaaa   aaaa                          4244
```

<210>   567
<211>   3151
<212>   DNA
<213>   Homo sapiens

<400>   567
```
ccggccagcg  ggcgggctcc  ccagccaggc  cgctgcacct  gtcaggggaa  caagctggag          60
gagcaggacc  ctagacctct  gcagcccata  ccaggtctca  tggaggggaa  caagctggag         120
gagcaggact  ctagccctcc  acagtccact  ccagggctca  tgaaggggaa  caagcgtgag         180
gagcaggggc  tgggccccga  acctgcggcg  ccccagcagc  ccacggcgga  ggaggaggcc         240
ctgatcgagt  tccaccgctc  ctaccgagag  ctcttcgagt  tcttctgcaa  caacaccacc         300
atccacggcg  ccatccgcct  ggtgtgctcc  cagcacaacc  gcatgaagac  ggccttctgg         360
gcagtgctgt  ggctctgcac  ctttggcatg  atgtactggc  aattcggcct  gcttttcgga         420
gagtacttca  gctaccccgt  cagcctcaac  atcaacctca  actcggacaa  gctcgtcttc         480
cccgcagtga  ccatctgcac  cctcaatccc  tacaggtacc  cggaaattaa  agaggagctg         540
gaggagctgg  accgcatcac  agagcagacg  ctctttgacc  tgtacaaata  cagctccttc         600
accactctcg  tggccggctc  ccgcagccgt  cgcgacctgc  ggggggactct  gccgcacccc        660
ttgcagcgcc  tgagggtccc  gcccccgcct  cacggggccc  gtcgagcccg  tagcgtggcc         720
tccagcttgc  gggacaacaa  cccccaggtg  gactggaagg  actggaagat  cggcttccag         780
ctgtgcaacc  agaacaaatc  ggactgcttc  taccagacat  actcatcagg  ggtggatgcg         840
gtgagggagt  ggtaccgctt  ccactacatc  aacatcctgt  cgaggctgcc  agagactctg         900
ccatccctgg  aggaggacac  gctgggcaac  ttcatcttcg  cctgccgctt  caaccaggtc         960
tcctgcaacc  aggcgaatta  ctctcacttc  caccacccga  tgtatggaaa  ctgctatact        1020
ttcaatgaca  gaacaactc   caacctctgg  atgtcttcca  tgcctggaat  caacaacggt        1080
ctgtccctga  tgctgcgcgc  agagcagaat  gacttcattc  ccctgctgtc  cacagtgact        1140
ggggcccggg  taatggtgca  cgggcaggat  gaacctgcct  ttatggatga  tggtggcttt        1200
aacttgcggc  ctggcgtgga  gacctccatc  agcatgagga  aggaaaccct  ggacagactt        1260
gggggcgatt  atggcgactg  caccaagaat  ggcagtgatg  ttcctgttga  gaacctttac        1320
ccttcaaagt  acacacagca  ggtgtgtatt  cactcctgct  tccaggagag  catgatcaag        1380
```

341

```
gagtgtggct gtgcctacat cttctatccg cggcccaga acgtggagta ctgtgactac    1440
agaaagcaca gttcctgggg gtactgctac tataagctcc aggttgactt ctcctcagac    1500
cacctgggct gtttcaccaa gtgccggaag ccatgcagcg tgaccagcta ccagctctct    1560
gctggttact cacgatggcc ctcggtgaca tcccaggaat gggtcttcca gatgctatcg    1620
cgacagaaca attacaccgt caacaacaag agaaatggag tggccaaagt caacatcttc    1680
ttcaaggagc tgaactacaa aaccaattct gagtctccct ctgtcacgat ggtcaccctc    1740
ctgtccaacc tgggcagcca gtggagcctg tggttcggct cctcggtgtt gtctgtggtg    1800
gagatggctg agctcgtctt tgacctgctg gtcatcatgt tcctcatgct gctccgaagg    1860
ttccgaagcc gatactggtc tccaggccga gggggcaggg gtgctcagga ggtagcctcc    1920
accctggcat cctcccctcc ttcccacttc tgcccccacc ccatgtctct gtccttgtcc    1980
cagccaggcc ctgctccctc tccagccttg acagcccctc ccctgccta tgccaccctg     2040
ggcccccgcc catctccagg gggctctgca ggggccagtt cctccacctg tcctctgggg    2100
gggccctgag agggaaggag aggtttctca caccaaggca gatgctcctc tggtgggagg    2160
gtgctggccc tggcaagatt gaaggatgtg cagggcttcc tctcagagcc gcccaaactg    2220
ccgttgatgt gtggaggga agcaagatgg gtaaggctc aggaagttgc tccaagaaca    2280
gtagctgatg aagctgccca gaagtgcctt ggctccagcc ctgtacccct tggtactgcc    2340
tctgaacact ctggtttccc cacccaactg cggctaagtc tcttttttccc ttggatcagc    2400
caagcgaaac ttggagcttt gacaaggaac tttcctaaga aaccgctgat aaccaggaca    2460
aaacacaacc aagggtacac gcaggcatgc acgggtttcc tgcccagcga cggcttaagc    2520
cagcccccga ctggcctggc cacactgctc tccagtagca cagatgtctg ctcctcctct    2580
tgaacttggg tgggaaaccc cacccaaaag ccccctttgt tacttaggca attcccccttc    2640
cctgactccc gagggctagg gctagagcag acccgggtaa gtaaaggcag acccagggct    2700
cctctagcct catacccgtg ccctcacaga gccatgcccc ggcacctctg ccctgtgtct    2760
ttcatacctc tacatgtctg cttgagatat ttcctcagcc tgaaagtttc cccaaccatc    2820
tgccagagaa ctcctatgca tcccttagaa ccctgctcag acaccattac ttttgtgaac    2880
gcttctgcca catcttgtct tccccaaaat tgatcactcc gccttctcct gggctcccgt    2940
agcacactat aacatctgct ggagtgttgc tgttgcacca tactttcttg tacatttgtg    3000
tctcccttcc caactagact gtaagtgcct tgcggtcagg gactgaatct tgcccgttta    3060
tgtatgctcc atgtctagcc catcatcctg cttggagcaa gtaggcagga gctcaataaa    3120
tgtttgttgc atgaaaaaaa aaaaaaaaa a                                    3151
```

<210> 568
<211> 1130
<212> DNA
<213> Homo sapiens

<400> 568
```
tgagagtccg gctcaggctc cggctgcggc tccagcccgc gatgccccat tccgtgaccc      60
tgcgcgggcc ttcgccctgg ggcttccgcc tggtgggccg ggacttcagc gcgcccctca     120
ccatctcacg ggtccatgct ggcagcaagg cctcattggc tgccctgtgc ccaggagacc     180
tgatccaggc catcaatggt gagagcacag agctcatgac acacctggag gcacagaacc     240
gcatcaaggg ctgccacgat cacctcacac tgtctgtgag caggcctgag ggcaggagct     300
ggcccagtgc ccctgatgac agcaaggctc aggcacacag gatccacatc gatcctgaga     360
tccaggacgg cagcccaaca accagcaggc ggccctcagg caccgggact gggccagaag     420
atggcagacc aagcctggga tctccatatg gaaaaccccc ttgctttcca gtccctcaca     480
atggcagcag cgaggccacc ctgccagccc agatgagcac cctgcatgtg tctccacccc     540
ccagcgctga cccagcagag gcctcccgcg gagccgggag cagagtcgac ctgggctccg     600
aggtgtacag gatgctgcgg gagccggccg agcccgtggc cgcggagccc aagcagtcag     660
```

342

```
gctccttccg ctacttgcag ggcatgctag aggccggcga gggcggggat tggcccgggc    720
ctggcggccc ccggaacctc aagcccacgg ccagcaagct gggcgctccg ctgagcggcc    780
tgcagggget gcccgagtgc acgcgctgct gccacggaat cgtgggcacc atcgtcaagg    840
aacgggacaa gctctaccat cccgagtgct tcatgtgcag tgactgcggc ctgaacctca    900
agcagcgtgg ttacttcttt ctggacgagc ggctctactg tgagagccac gccaaggcgc    960
gcgtgaagcc gcccgagggc tacgacgtgg tggcggtgta ccccaatgcc aaggtggaac   1020
tcgtctgagc tgggaccctg ctcccacccc tgcttcttaa ggtccctgct cggccggtgt   1080
aaatatgttt caccctgtcc ctctaataaa gctcctctgc tcaaaaaaaa               1130

<210>   569
<211>   481
<212>   DNA
<213>   Homo sapiens

<400>   569
tctccttgcc gggtcagccc tgacaaaggt cagctagccc cttgaggaca tcagctttgg     60
cctcagggtc ctaatggcag cagaaccact gacagagcta gaggagtcca ttgagaccgt    120
ggtcaccacc ttcttcacct ttgcaaggca ggagggccgg aaggatagcc tcagcgtcaa    180
cgagttcaaa gagctggtta cccagcagtt gccccatctg ctcaaggatg tgggctctct    240
tgatgagaag atgaagagct tggatgtgaa tcaggactcg gagctcaagt tcaatgagta    300
ctggagattg attggggagc tggccaagga aatcaggaag aagaaagacc tgaagatcag    360
gaagaagtaa agccgcctgg ctgagatggg gtgggcaggg cagagctgat cagggccgag    420
cagaaccgca ctcttcccaa ataaagcttc ctccttgaaa aaaaaaaaa aaaaaaaaa    480
a                                                                    481

<210>   570
<211>   1360
<212>   DNA
<213>   Homo sapiens

<400>   570
cggggggttgc tccgtccgtg ctccgcctcg ccatgacttc ctacagctat cgccagtcgt     60
cggccacgtc gtccttcgga ggcctgggcg gcggctccgt gcgttttggg ccgggggtcg    120
cttttcgcgc gcccagcatt cacgggggct ccggcggccg cggcgtatcc gtgtcctccg    180
cccgctttgt gtcctcgtcc tcctcggggg gctacggcgg cggctacggc ggcgtcctga    240
ccgcgtccga cgggctgctg gcgggcaacg agaagctaac catgcagaac ctcaacgacc    300
gcctggcctc ctacctggac aaggtgcgcg ccctggaggc ggccaacggc gagctagagg    360
tgaagatccg cgactggtac cagaagcagg ggcctgggcc ctcccgcgac tacagccact    420
actacgac catccaggac ctgcgggaca agattcttgg tgccaccatt gagaactcca    480
ggattgtcct gcagatcgac aacgcccgtc tggctgcaga tgacttccga accaagtttg    540
agacggaaca ggctctgcgc atgagcgtgg aggccgacat caacggcctg cgcagggtgc    600
tggatgagct gacccctggcc aggaccgacc tggagatgca gatcgaaggc ctgaaggaag    660
agctggccta cctgaagaag aaccatgagg aggaaatcag tacgctgagg ggccaagtgg    720
gaggccaggt cagtgtggag gtggattccg ctccgggcac cgatctcgcc aagatcctga    780
gtgacatgcg aagccaatat gaggtcatgg ccgagcagaa ccggaaggat gctgaagcct    840
ggttcaccag ccggactgaa gaattgaacc gggaggtcgc tggccacacg gagcagctcc    900
agatgagcag gtccgaggtt actgacctgc ggcgcaccct tcagggtctt gagattgagc    960
tgcagtcaca gctgagcatg aaagctgcct ggaagacac actggcagaa acggaggcgc   1020
gctttggagc ccagctggcg catatccagg cgctgatcag cggtattgaa gcccagctgg   1080
cggatgtgcg agctgatagt gagcggcaga atcaggagta ccagcggctc atggacatca   1140
```

343

```
agtcgcggct ggagcaggag attgccacct accgcagcct gctcgaggga caggaagatc      1200
actacaacaa tttgtctgcc tccaaggtcc tctgaggcag caggctctgg ggcttctgct      1260
gtcctttgga gggtgtcttc tgggtagagg gatgggaagg aagggaccct tacccccggc      1320
tcttctcctg acctgccaat aaaaatttat ggtccaaggg                            1360
```

<210> 571
<211> 1635
<212> DNA
<213> Homo sapiens

<400> 571
```
aaaggaagag aaagggagag agggagagaa gagggagaga gcagagagac ctcaccgaga       60
gagctgcaaa accagcctgg aaaaattaga gtattaccta acattagtga aaaataaagg      120
tactttcttg agaagccctt ggacccattc tgcctcctgg agttctgaac ttttcactca      180
ctgcctatta attaatgtta agcctgcaaa gaatggagtt gtcctggata tttggccaaa      240
aaaaaaatgt atccacaaac agggacgtaa tcaggcaggg agcctcgtta agaagttttg      300
ttcttgtcct aggagtgatg agagatcact gaaggattta gagaggggct gtatcatcag      360
gcttgggttc caaagcctca ctgagagagt tggggagctg actgatgtca gatgctcgtg      420
cagccgcccc gtagggcctg tatttcctcc atggtgcctc actgcagcac cgagcttgca      480
aaagatcctc tctctttatg ggaatttcaa aacagaagca aaatagcacc ggggcttaaa      540
gcattcttgg gaatttccct gtctttccct ctaaataatc agcatgtaaa ttgcaaaaaa      600
aaaaaaaaaa aaaaaagaca cgggcccaaa agggagcgct cagtttcagg ctctttgctt      660
tccttcctcc cgaggctctc tggcccttac ccagcctgaa aacaaaaagt gtgaggggga      720
gggtaggaag gtagttcaag cagggcaatg ctgagcctgg gaagaaaaca acagccttgt      780
ttagggcact gtggcttacg taactaaatt gtgcccagtt tccacctggc caggggcctg      840
gagtgaatgc tgaagatgca aaggtagagg ctgccagaaa agccaggaaa ttgctggcaa      900
gaaaggccag tggtggggtg caggagtggg aggaaggctg ggaaatgcgg ctgagtcaca      960
tctccagaag ccccccatca tcaccctagt ggctcttctg ctggcaggcg cctcatgaag     1020
acctgcccca aagtttcaa aactctgcgg tttctcaacc ctcctctggt aatccatagt      1080
actccccgc ctccacttgc cagcctcgtg attccttcat ggacacatag ctcagttccc      1140
ataaaagggc tggtttgccg cgtgggggag tggagtggga caggtatata aaggaagtac     1200
agggcctggg gaagaggccc tgtctaggta gctggcacca ggagccgtgg gcaagggaag     1260
aggccacacc ctgccctgct ctgctgcagc cagaatgggt gtgaaggcgt ctcaaacagg     1320
tatctgggct agccaaggtt aatccatcag agttgtgggt tttcaggccc agacagcccg     1380
cagagccatc tgcctgctgg gtgagggact aagggagtgg gcagaggggg aggagaagca     1440
gagccagggg agggactgag gctgcaacca ggaggtgggg gtggggagt gggtctcagt      1500
tgcttggggg agggagcagg gcggaagggc aggatgcact gcagggtc tcatcctgga       1560
tttctcttca ggctttgtgg tcctggtgct gctccagtgc tgtgagtaat ccctccacct     1620
ccactttaa gtcca                                                       1635
```

<210> 572
<211> 23822
<212> DNA
<213> Homo sapiens

<400> 572
```
gatctctggg gacctgcctg gcagtgggtc aaataaataa agggagttgg agctcccgga       60
gggtaggact aggggttgag taggagccgg cgggctcggg cagggcgggt cccttggggt      120
ttccaactcc gcgggcggcg cagtgccccg caggcctcgc ttccactggg gaattccggg      180
```

344

```
cggggtgcgg gcggcggggc gggggcgggc cggggcgggg ccggtaggcc gcctataaga    240
tgggtggcgc gcccgcccgg gccactcgcc gcagcctgcg cgccttctcc agtccgcggt    300
gccatggccc ccgcccgtct gttcgcgctg ctgctgttct tcgtaggcgg agtcgccgag    360
tcggtgggtg cttggaggtt cccgggctgg gggcgaagcg ggggcgcagg ccggtgcctc    420
ctttgttcgt cggagcgtgg gatggggggg tcagatcggg ggtacgctac ccccaaccgt    480
acaccgaggc ccgggaaact ttgttggaaa ctttgctccg gggtcacggg ccagctccgg    540
gatggcttca cgcgccgtgc gcccctcgcc tgttgctctt cccgcctccc cgggcctcag    600
ccccgccgcg ggctacgggc tcgttagtga ctaagccggt gtcaactctt caactcccac    660
accctcgtcc cttccctggt gaccctgggg caggcttgga gcgctgaatc ccctcctcgc    720
tctcggggcg cccagagcag acagctttag gatccgagat ggccctgggg gtcggggggc    780
tgcgtgtact cggaagggggg agggtttttag ggttgtgcga ggccctcttt cacacaccaa    840
ggagaactga gccctaacct cagttctggc cccagctctg tcattgactt gtgacttagg    900
gcaaaagtcc tgcccttctg aatctcttcc caatactgca ccaagggtct gagggaatgg    960
ggcaagaggg gacactgcgt tagggtttct agaaagttgg ggactctgct cttttcgagg   1020
acagaggaga ggaatggttt agactcaaca cttagccagg agctgagcct ctgctttctg   1080
caagaagtgt gttcattttt tctcaattgc agataagaaa attgaagcat ccaccttgag   1140
tgaggtgaag ggggtagggg ggagagaagg cctcaatcag cccagggaaa cctttccttc   1200
tcactgtcca ctggcctccg tcatagctgt ccctgggcca gcagaagctc tatccatgcc   1260
cgcagccggc ttaggaggag gggggcaatc tcatctggga agttggggggg catgggaatt   1320
actggtgaag gcaatctgtc ccccacagcc tgagctttgt gccccctttg tgccctttag   1380
ccccagtttt cagagcgagt gagtccttgc agtttaacca ttaatgttaa tttctttgaa   1440
agccttgggg ctcctgttcc tctgaattta cttagcggaa ggttgattct gcctgcaggc   1500
tcttcttgag gaatgaatga gaccctaggc aatacttcca gcacaattcc aggcatgcca   1560
tgatgattgc aaacgtggag cgcctttgtc gggggggccag acattgctct aataactttc   1620
taatgggtat atcaaggagc ttaattccaa caacaatctg actgtgtact gttcttaaac   1680
tggtcctgag gctagagagg ttaagtaact tgcccagggt cacacagtta atacacaata   1740
aatgggtgag tcagattgaa atttaggcag ccaggctttc aagtttctgc tttagcttaa   1800
cttctactct ttgtgctact ccaggtgtcc catcgttggt aactaaagac gggtttagaa   1860
taggttgaga ttttatgctg gaaggcaaag gaattctgag gtggaaggaa acaaggccag   1920
agtgaggtga tgacttaacc taaaccaaag gctaccttgc ctaaaatgtt agtggctgag   1980
gacccaagcc ttctgcctct agcacagtgc tctaaactag gccctgaagg atgtgtcggg   2040
tcaagcaact ggggaagcat ccgaaggata ccacctaggc agtacaggga aaaagaggaa   2100
aggacccagg aggttgctga ggtcaccgtg tgcccagtca catgccagtt tcctccaggg   2160
ctgctgagcc ttcaggtgct tcagggtgct gagctgtcag ctgtgtcctg ggggcattct   2220
gaaggatgta gtttggggga aggggactgt gtcagtcctg cctgggtgac ccatcagctg   2280
caggagacat cagccctggg cagctgcttc ctgagatagg tgtcaagtct catcctgacc   2340
tcagctctcc ccttcctggc taatgtcaca gacctcctgc ctgtaactgg ggcacagggc   2400
ttccccccttg gcctgtcccc tccctctttt ctagattgtg gttggaaaaa tcagacatag   2460
tcacggttgg ctcggactga agagatgatc cagcgtgtcc ttttcttttt gcaggtagag   2520
aaaagtgagg cccagggaga aggactttgc taatagcagt taggagtgat agagtacttt   2580
ttatatgaca gatctggtgc attttgtcct cacaaaaaga cctgtcacat ggggattcta   2640
ttatgcccac tttccaaatg tgagaggtaa aatggtacta ctttgggtta gtagagggca   2700
tccaggaccc caggatctct gactagtagc cctcccattg tgggtggtgt tcgcccgact   2760
gttccatcat tcccccttacc accccccatat tttggaaggg aacccaggct cagtacccag   2820
ctgtcctctc ctctgtttgg ctgggcttgc tatactaaac cagttcttcc tgtccagctg   2880
ggagcattcc ctgatctgcc ttcctgccac tccctctcag gccaattaaa ggcagccttg   2940
ttttgggagt ccccctccacc caaaggtgtt cctacccagg ggcacagcct actgacttgg   3000
ccccaggcca ggcggttgtg gggaagtgtc ccccacctat cacctatcaa gtgtactta   3060
```

345

```
gcttaaggac atttctggtc ttctacagcg tcctcttctt gattacatgg gagtaggggt    3120
gggggcggaa cgtaggggct tctaggaccc ttgagtgaac agtgagagct cttgggactt    3180
cttgagccca gggagttatc aaacacccca gaaaatattt gggccatgat ttggagggtt    3240
ccgtgagttg gggggaggcc tctttccccg ctgggctgac atcccccacc ttaaaatgaa    3300
aggtttgaac agggtagcct ccagagtcct ttccatctct caatttgatt aataacttaa    3360
gtacctacta ttcaaaagag gtctctctct tgaaggaatt aacttgaggg aattaacata    3420
ctccaccaaa tgctgaatcc ctccctctct ccccccgcac accgagggca ggaactctgc    3480
tctatttgtt tttgtgaaat acctgtcccc tagtttgtac tcaggaaatg cttgtatgaa    3540
tgaataaatt cgtgcatgta actttattct aaatggttca ttaatgttat ttattgctag    3600
tatgagtatc tcccagtact gcgaggtacc attttctcta tttttacagg aaattgatgc    3660
tcggaacaat gcagtggctt cctaaggtca gaaccaggtc cttctgatag ggcaaggtgt    3720
ctggtttgag tgtcctcaga atattccaga tgaggaaatt tcgctgggtt tgaaggtaga    3780
taccttaggt cctacttctg cgttgctggg tgaccttgag caaacatgcc ctgtctctgg    3840
gtctcagtgt ccccaactct aaaataagga ggctggacca ttgccttcca agggtccttc    3900
ctgcccagag agcccattga tgaggggagg ggcccctttgc tggcctcctt ggtgaagagt    3960
ctaaacaaat cccagtctca gaagagaagt tggggtggcg ggggacatt cagctcctgc    4020
catccccagc tcctagaaac agagggcttt tccaaggact tggagtgctg agcctgcctg    4080
aatgaggagc tggggaagcc aggctgggct cccagcccag ctccctgttg ggagaaattg    4140
gctcctagct gtccttcaac ctccccggact ggacaggcga gtgtgatttc caaatgaatg    4200
cttaaaattg gggtaagggg ctggaccgag cgctgtgagt cactgcatgc tagcgtagcc    4260
tgcctgagtc acccatttcc tttcaaactc ttggctaata ggacagctct gtggtggggg    4320
gtgttggaat gagctcagag ttttaccttg tcctttggga gtcactgttt cagtgtccgg    4380
ggcctcgagg ggacatacag gacatgtttg tactaggtcc cgccactttc acagcccctt    4440
gcctgcatgt agactttgac attgtacatt gtgcagccag tcctcaaaat tgggctttag    4500
acctctgcag agcaggtagt acttttttcc tctttaaggc aaaactgagg ctgcaactgg    4560
cctgcatttt ttcagagagc aaaagctggt actgttcagg tttggtgtga ccccaggatt    4620
ttctgatgtt tgtgaggact cgtctttgct tcctggggct ggccagaggg cattgaaaca    4680
ttggcttggt gttacacaga cttaactcca gacgtgcgaa gtccacctct tactggctac    4740
atgaattcag tcatgctact ccacctctga gccccagcct cctggtctgt taagaagatc    4800
atgataccgg tgtggcgaag cttaaaggag acgacagggc tgtaaataaa ggcacctagt    4860
accatgcctg gtagggagga ggtgttactt agtgacagtt cccttccttg cccaggccac    4920
cttcatgcca gggggtccta tctctgaaga ttctgagccc aggtctcctg gaaagctttc    4980
tccatccccc ttatccccct tatctacccc cacagctggg aggtgggaag ggagaaatct    5040
agggtggggc ttttggagtc caaatctcct atttgtttat cttagaagtg ggctgtttgc    5100
taattatcga atgggtttat gtttaaacaa gaaccagttc tgggcagccc cacctctcct    5160
gctgggattt gctggagcct catgctgaac agtttgcagc ctggagggag aggggcagg    5220
gggtttgcca agggtatcag accactctgg acactgtcca ggacctgggg tcaccctcct    5280
gtgctggagg ggcagagttt ctacccttaa ggaggctgag tgattgcaaa tagcactttg    5340
aggggtgggg tgttggtgga cagaaaggt acagtgttct gaaaagccag tttctcgtat    5400
gttttcactg catggtgccc tagagaggga ggagagagaa cacatatgtc aacagttggg    5460
gtctcattta accttagaag aataagcctg acttcttggg cttgtttgtc attaactaac    5520
acagtggtga ccttgggcac attcttgcat ctcactgggg cctctctggt cccatctgct    5580
gaaggctggg tgactgaaaa agagggtaca gaaaactcca gcccccgtcc tagctctgct    5640
gctcacccag ggacacacac agttaatacg tcactttgtt gatgtgaact ccagtgtcct    5700
ctataaaaca cctgtggcac tcaaaggtca tcatcgctgt ttggcaaact tgtaaagttc    5760
tggctttatt agcacctaga caagggttct tcacccggcc agagtttggc tttggggagg    5820
tggtgtctgt gcatatgttg aaaatgtaaa ctaagagtta cagttattgg ggtttagacc    5880
```

346

```
tttttatcct tttcaggggg ctgcagtact ccccaaaagg tcactctgat ctcagcagtt    5940
ctttctggct ttgacctttc tacagctatc cttcctccct cccccacttc ccagccttgt    6000
tcttgcctcc tgcttccccc aaccccacc ttcagcccag accttcctat tcagcggccc     6060
ccacccttc aggctgcatc tcacccctcc ccctgtcctc caggcccggg agctcggctg      6120
ctccagtttt ctctggcaca gtagaagagg ctgctggtca ggtgacacct ggggtaatgg    6180
aaaggggagg cagggagagg ctggtatgtg tggaaacagt gacttggtga agcccagcag    6240
tcagtggcca ggcctgcggg gactggcggt gtcactctag cctctgggcg tgggggcaga    6300
tgtggcacat ggctggcccg gctacccaga gtggggatac tccttgcctt ggagaagccc    6360
tgccggagcc gtctgtggga cagactgacc tggtctggag gatggcttcc ttgggggtcg    6420
gtgagggagg ctgggaagag gcaggaagcc agcacccagg gctgatctaa tcagctgaga    6480
taaggctgca gcgtgggctc tctactctgc tctgagaaca caggaggttt gtttacatcc    6540
cgagagcctc cctagccctc ggatccagca gggatttcgg atctgctgcc tagattacaa    6600
gctccaactt caatgcacct ctgtctctga ggccctgagg gagccagccc cctcctggct    6660
gtctccaccg gtaatcggag caatgcccag cttggttact gggctgggac agagggaggc    6720
ttgtctcttt gagacctgtc ttttacagat tggaaaactg aggctcagag aagggaattg    6780
tccacgatca tccagggagt tagtaacaag ggtgctgggt cagctcctgg cagggagaca    6840
tccagaggct cctgaaccct tcccccattt ctagctggca ccctaggatc ctggagttct    6900
tgctgtggga atgggctgcc ctgaggcttg gtgaaaagct ggttgcaggc agtgcaggcc    6960
tggctctctc ctgagtgatt gtgttcagag taacccgacc ttgaaggcga catttgaacc    7020
ctcactccac ccccacccc agacctggtt taaccattca ggcaccagag caccagacca     7080
tggattggtg tgtagtttct ttttaccttc tagattttta tttatttatt ttgtccctgg    7140
ggacccaggt ccccaagtag aatttcaggt gtttctggtc actgtcattt gcaccttcgg    7200
ggaaaataaa aatggtcttt acctctgtct gcttaggaca ggtggtcaaa gctgtgtgac    7260
cttgggcagg tctctgacta tctctgtatc tttttttcac agtctgaagg gacctgattg    7320
gttgttgaaa gtctctgggc tcagaagcaa aatgataacc tattatagat tatattcctt    7380
tacagtttgc aaagcaccat ctccctgtcc ccaggctagc ttccttccag caacagaact    7440
gcctctgcaa gtttttccag gcctctgatc ctttgagcac tgatcccact ggccaggagg    7500
aaggcaggta ggggttaatc acagccacta ttcattgatc acgtgctggg tccttgcaca    7560
cacaaatgca ttcctcttaa tcctcatcac cctgcaaggt gctaccagcc ctagtcacaa    7620
aagaggaaac tgaggatttc agagatgaaa taaactccca agctcatata gttaggaagt    7680
ggcagaactc acacttgtga atctgccttg atgcacaacc actctgggtg gtagagtcac    7740
agttgtgggc cccaggtttt agccaggctg gggaatgtct ggcccttaag aagtgggtgg    7800
ggtggggaag aacagttacg agtagtgtac gctgctgggg gtctcctgct agaaatcatt    7860
ctggtgggtc caggtgttgg agccccaggt actcaccatc ccctctcccc actaaatttg    7920
gcttgccagt tattaccctt ctggtcttgc ctcctgaaag aagggtcaag tgtgtccccg    7980
accctacctc ccctgggaga gccaggtcgg gagaggctct cattagttca cagttatcca    8040
agccctgacc ctgaactcct ctctggtgcc ccagccaagt ttctgttcct ttgtttaagt    8100
gatatcactt tcacctttgt ttactcctag gcagggacag ggttgccctg gagccctggc    8160
ccagccagtg tgttgtggac tggcgggtta ggctggagag aagtgaagag tgggtggcag    8220
tgagaagcct agttgtggtt gggacgtgtt cttgaggaag atctggattt gaatcccagc    8280
tctagctttc tagttgcatg acgttggata agtgactcag ctgaacctca gtcttctcat    8340
ctgcaaaatg ggtagagcac cttgcaaggc tgttttgcca tttaaatgaa cttgtataaa    8400
caaagtaccc agcatggtgc ttggcatgta gtggatactc cttttagtca ctccatgcttt   8460
tcctggggtg atagaagcca taggatttgg ggatagggtt gggataggac cttttcgtag    8520
cttcatgcct atagccaaaa gactagatgg ggagtataac tgtaatgaca gctgctgcct    8580
gtggatttgc tgagaccctt aggggcagcc aacaccctgg aaggcgagag aagataattc    8640
cagtctggag ccaggatacc taggttctaa gtccatctcc gctgccagct gcttggatga    8700
ccttggcaaa atcccttgtc ttgtctgttt gctaggttat aaaatcagat accttctgtt    8760
```

347

```
ggcaggtgtt agtttctgta gaacaaaaga gcacttcccc tcccttcttt ctccccaaca    8820
gtctggggaa gaatgtagta tctctaaacc cccaggcact aatcccagat ccccaccagc    8880
cacagggcca gcagagtctg tgggacctag gcccattgcc ctattttta ttttttggag    8940
acagggtctt cctctgtcac ccaggctgga gtgcagtggc acgatcgtag ctcactgcaa    9000
cctcgacctc ctgggctcaa gtgatcctcc cacttcagcc tcccgagtag ctgggaccac    9060
aggcgtgcac aaccacattt ggctaatttt tgtagagatg gggtttcacc atgttgccca    9120
ggctgatctc aaactcttgg gctcaagtga gcctcccacc ttggcctccc aaaatgttgg    9180
gattaagcca ctgtgcctag ccaccactgt cttacttagt tggtaatttc tgttgtgtgt    9240
tcatgaaagg gacaaagata caaggagact tgagagccca gagagggtgc ctgtgcatgt    9300
atacacacta acacacatgc cttgggcaaa ggtgggtgag ctgaggagaa cagaccacat    9360
tcttagccag gagcagggcg ggtccatctc tggtcagggc tgggcctggc tgctgggtgg    9420
cctggttctt caaagtcacc ccagactcaa tgggctttat ctgaaaagag ggcggaggag    9480
aggaggaccg ttggtgcctt cccaaccttt acacaaaaaa gagtgattgc ccacaatccc    9540
acggggcttg gtcccgtctt gctggcctag tcctaaatgg ctcttatcca cttttggagtt    9600
gccttccctc ttgtcagagg tcatgggtgg agaagggacc aaaacagggc agagagggggg   9660
cttccagagc tcaaggagag atttaattcc ctgtgtcctc ctatcaccac tgggagctgg    9720
aagaagtttc tttccagccc cttgacttgc tgtaggaggg aaatcctggg ctcatctaaa    9780
tgcagccttt gaagactcca tcttttcaga gctttgaaat aggatcgaat ccaggccgtg    9840
ccgcggagcc ccggggtgac ttcagactag actagtttct tttttggaaa ctgagtataa    9900
aaatgaaggg ttaaggatga acaggtgccc acaaagaggg ctgaactggg aataaatctt    9960
ggtttcagcc ttggttttgc tgctgacttg gctgcaagat cttcacgccc cactttcgct   10020
catagccttc atttctctaa tgtaaaacgg aggtaattcc taacagccag tgggcatgct   10080
aatcccatgg gttgtttga aatacctctt agcactttca catactgaaa gagaggctgg    10140
atgcataaac aaccttccat ggctcctggg ggcagtgagg ggtgggaaaa ggtctctcag   10200
cctgagacaa gtctcctgat ggaactacag cccctgttga ggactttgac ctggtcaaca   10260
gctggccaaa gtgtaccatt ctttctttct cccggctaga ttgacccccc tacttaacag   10320
ggctcccttg gagctggggc aggctggtga ccccgtgtac atatgtgttc atgcgtgtgt   10380
ttatgtgttt gtggttaaat gtccaggtca gtgaagcctg ggttctggcc cagtgtggct   10440
acttcctgct tgtgtggcct tggacaagtg actttacttt tctgagccct tgtttccatc   10500
tctgcaaaaa gggactatta aaaggaccta gacaggctgt gtgcttggtt aaggcctgtc   10560
acttgggttc ttgggggatt tgccacagga gatggaggta ggagcacagg gaccctgccc   10620
ttaggtatag gcacttgggc agccatgagg agccttcctc ctgctctgcc aaaccaaagc   10680
cacaggcacg ggctatgtgc gggggcttga attccagcac cagcagcccg gcagctcctg   10740
attcccgagt catgaagtca tctctgagca gcacttaacc tctctggctt tccacccca   10800
cgggtgccaa gcgttcagca ttctccccac tccccgggag agagtgattc ctggccactg   10860
ccttccttgt ggcctgaccc cgctcccttc cgggaatcca gcattctccc tctgtggggg   10920
tggaagaggg tgcatgaggg tcaggttcca cctgcctctc cccagaagcc cagtggggag   10980
agtacaggag tggctctgaa gcagctttcc tgggcctctc ctgcaatgat aataaccta    11040
tcttagggac agatgttcct tctcagacac cctcctttgt caatggcagt ctcagctgag   11100
tgaaggactg cctggggtgt ccgaaacaga gacctgacct ctttctatcc tgagttatgt   11160
agcgaacgct ctgtgtgacc ttgggcaagt ccctcccctg ttccgggctc agattcaagt   11220
tgtgtgaaac gggaggacag gagctccttg ggtcctggca ttctgtgatt ctaagcagac   11280
ccccagctcc tgcagttatg gcgtctggag aagatgggaa tgtctttcag cgggaggggc   11340
atggtgtatt gaacttaatg aaaaacccca actctcctgg caaatactag gcactttagt   11400
gtttgaatta attagtagaa taatgaactt tgctcagagc tgctgttctc tgggcaaaca   11460
gaagcctgag cccagaagct ggaggaaggg tgatgggcat ccaaatgttt cctgtgctct   11520
tgagggtaca ttgttcccac tcggtggagc tacaggatgg gagcagggta actgatgtac   11580
```

348

```
tgtagggctg cccgggacct ttgacacttt cttttggcaa gcggtttggt gggagtggac   11640
ctgagactct gtcctgatca gctgtgtctc cacagggtag tggctgagtg atgattatgg   11700
gtactggagt ggatggtctg tgagggtagg gattgtgcct ctcggtgtct gcatggtgct   11760
ggcagcagag tagatctgtg ggagatgttt ggaaggcaag actgaatcca ggagtacact   11820
cctgagtcat caggtctggg cagcgccctg acctgaggct gtcttagggt gtgcgtgagg   11880
cagccctgtc tgtcccggcc cagactgact cagctgggaa aagtatcctg gactgggcaa   11940
gaccagaacc aggagcccac tccctgtcct gtgtgaatca gctgccactg catcacagag   12000
ccctggagtg tagcatccca gggccctgtg catggagact cctggctctg aagtcaggca   12060
gccctgcgta tgcaatcctc gctcttccat ctgccagctg tgtcaccaaa agaaaatgac   12120
tccctcggct gtaaaaagaa gtgaataaca tgcctccaga gttattaaaa cagggcccag   12180
cacatagcaa gtgctcggta aaggatatct agccatatta ataatttgat tattacctca   12240
tttactgttt ttattttttt tgagacgggg gtcccactct gtagctcagg ctagagtgca   12300
acggcgtgat cctggcttat tgcaacctcc gcctcccggg ttcaagcaat tctcctgtct   12360
cagcctcccg agtagctggg actacaggcg taagccacca cgcccagctg atttttgtat   12420
ttttagtaga gacggggttt caccatgttg gcctggcagg tcttgaactc ctgacctcaa   12480
gtgatctgcc tgcctccgcc tcccaaagtg ttgggattac aggtgtgagc cactgtgccc   12540
agcctcatgt actattttta tttgcccaga atggaaagag acttgcctaa ggacacgcgg   12600
tgagttagag gtagagtggg atccaggacg caggtctcca ggccctggct gtctctttct   12660
agtttctgaa tgcccacttc actagctttt gggcatcagc tgtcatggag cactggggat   12720
gttggctgat gtgtctcctt tctttatctt agatccgaga gactgaggtc atcgaccccc   12780
aggacctcct agaaggccga tacttctccg gagccctacc agacgatgag gatgtagtgg   12840
ggcccgggca ggaatctgat gactttgagc tgtctggctc tggagatctg ggtacggaag   12900
gtgtgctggg caggcgtagg cacaaagctg gagggagtgg tggcttcacc agccaggagg   12960
gtgaccatgc cttgagactt ggatttttgt gggacttttc ctagagtgcc cttcttcttc   13020
cttctcaaaa aaaggggaaa caaaagtaat ggattaacct attccatccc ctgagagccc   13080
ctggggacaa gctgtttgct gctttgaagt cattggtagc tctgggtttt ctgagctcca   13140
gcctgaacgt gtcctcataa gctcttctct tttctgcagg gcatggtggg ggtggggtga   13200
gggtaggatg ggtggcagga cagggtggga gtggggaagg aggacccata gagtgttttc   13260
ctttttttga aaggaaaagt tccaccctgg gccacatggt gagaacttgt ctctacaaaa   13320
acacaaaaat tagctggatg tggtggcatg cacctgtagg agtcccagct acttgggagg   13380
ctgaggtggg acgatccctt gagcctagga ggttggggct gcagtgagcc aagatcatgc   13440
tactgcactc cagcctgggt gacagagtga gaccctgtct caaaacaaaa aaggaaaagt   13500
agcagcttag aagtggggat ggggtgggag ggggcatgag tgggcagaga tgtagttggg   13560
aaaccaagaa caagtccctg cttcagtggg ggtggggcg ggtgaagggc ccaaggctct   13620
aggccagaca gctaataagt gtccctccta tgtgcagaga ggtgttaatg attgcaagtt   13680
ttagctttgc aagttttagc tttggagtca catggtcctg agttcaagcc tccatcctgt   13740
gtgaactgag cttcagtttt ctaatctgta aaatgggaat aataaagata gtacatcagt   13800
gttgtgggga ctgaactgac ttaaagcttt tggcacctac caagcactca gtacgtgtgt   13860
gtttggttta aaaaaaaat aaattttatg gccggcacg gtgctcatgc cgtgaatccc   13920
agcactttgg gaggccaagg caggaggatc acgaggtcag gagtttgaga ccagcctggc   13980
caacatggtg aaaccccgtc tctactaaaa atacaaaaat tagccaggtg tggtgtcgag   14040
tgcctgtaat cccagctact gggaggctg aggcaggaga attgcttgaa cccgggaggc   14100
agaggttgca gtgagctgag atcacgccat tgcactccag cctggtgaca gagcaagact   14160
ctgtcttgaa aaaaaataaa aataaaaaaa taaatttcat tatgtgcata caacatgata   14220
ttatgggata catatagata gtaaaaatgt tactacagtg gagttaagta atatatccat   14280
catctcacat agtcgcccag gaaatgtttt aatattgcag ttagagtttt ctttctcaaa   14340
agttaattcc ctggggatct tgttaaaatg tagattttgg ccgggcgcgg tggcttacac   14400
ctgtaattga agcactgtgg gaggccaagg caggcggatc acaaggtcaa gagatcgaga   14460
```

349

```
ccatcctggc caaccaacat ggtgaaaccc cgtctctact aaaaatacaa aaatcagctg  14520
ggtgtcatgg tgccaccctg tagtcccagc tactcggggg gctgaggcag gagaatcgct  14580
tgaacccagg aggcagaggt tgcagtgagc cgagatggca ccacggtact ccagcccagg  14640
cgacagagag agactctgtc tcaaaaaaaa aaaagtagat tttgattcag tcagccctga  14700
aattctacat ttcttcttct tttttttta accaatgaat tatttttact ctttttaaat  14760
aagtgaaata ttagctttaa tgttttctga tcatgacaat atttttagat aagaacattt  14820
taaacattca acagtaagag actattgaaa ataaatgaaa ttcattgaat agaagtaatt  14880
aaaataataa tgtaactctt taagcattgt aatggaaaga tgttaatgat atattgttac  14940
gagcccatta ttgggaaaaa tgtatttagg aatacgtatg gagggaattt atttatttat  15000
tttttgaga cggagtcttg ttctgtcgcc caggctggag tgcggtggta ccatcttggc  15060
ccactgcaac ctctgccaac cgggttcaaa gtgattctcc tgcctcagcc tcccaagtag  15120
ctgggattac aggcgcgtgc catcacccgt ggataatttt tgtattttca gcagagacgg  15180
ggtttcacta tgttggccag gctggtctcg atctcctgac ctcaagtgat ctgcccgcct  15240
tggcctccca aaatgctggg attacaggcg tgagccaccg cgcctggcct tgaaattcta  15300
catttctaac cagctctcag gtgttgctat tggttttttgg atccacactt tgcagagcaa  15360
gggtttagag cagatgaagc ctctgcccag ctgccagctc acacattcct gtgaaagagc  15420
caggggtgg gtctgaggag ccccatttta cagatgagat gactgaagta ggggtgggga  15480
agctcgcttg ctggacattg agcatttgga agctggttgt aaggtggagc tcccaccagt  15540
cctggctgaa ggggtcattt tcctggggta atggacctca ctcacacagc tattctgacc  15600
ttacagatga cttggaagac tccatgatcg gccctgaagt tgtccatccc ttggtaagta  15660
gctacatgct tctgcctctt ccactttgct cctctatagc agacctattg ggagaggcag  15720
aaaatacagc ccccataggc agaataagtg aggggtctta ccccactatg cgggaaggct  15780
ttttaaaaat ctggccctgg ggtgggcatg gtggctcagg cctgtaatcc cagcactttg  15840
ggaggcttga ggtcaggagt tcaagaccag cctgggcaac acgatgaaac ctgtctctac  15900
ataaaataca aaaattagcc aggtgtggtg gcatgtgcct gtagtcccag ctacttgaga  15960
ggctgaggtg ggagaatggc ttaagtccag gaggcagagg ttgcagtgag ccaagattgt  16020
gccagtgcac tccagcctgg gtgacagagc cagactgtgt taaaacaaac aaacaaacaa  16080
acaaatctgg ccccaggctc attttgtagg ttgctggtag gccatcctcc ctgcagggat  16140
agtcaccgtc aacaccaact ccttttctct acatttatag ctatttccta gcattgatag  16200
aaaagtatat atataggccg ggcacagtgg ctaatgcctg taatcccagc actttgggag  16260
gctaagacgg gcagatcacc tgaggtcagg agttcgagac cagcctggcc aacatggtga  16320
aaccctatct ctactaaaaa tacaaaaaat tagcctggca cggtggcgtg cgcctgtagt  16380
cccagctact tgattgggag gctgaggtag gaggatcgct tgaacctgag aggcagagat  16440
tgcagtgggc agagattgca ccattgcacc ccagcctggg cgacagagac tccctctcaa  16500
aaaaaaaaaa aaaagtata tatatataat tctatgaact gcgttttca cttagactgg  16560
tcatgagtat ttccctgcat aatttaatgc tcttgtcatt tttataggct gcgtaatagt  16620
ttacctgatt ccctttattg acggaaaaat ggcttataat ttgttaacat tttaaaatta  16680
taacactgca gcaaacatct tttttatttt tgcaaagcaa taacaagttt attaagaaag  16740
taaaggaata aaagaatggc tactccatag gtagagcagt ggcattggct gctggttgcc  16800
cattttatg gttatttctt gattatatgt taagcaaggg gtagattatt catgagtttt  16860
ccaacaaagg ggtgggcaat tcccagaact aggggctcct cccctttta gaccatatag  16920
agtaacttcc tgactttgcc agggcatttg taaattgcca tggcactgat gggagtgtct  16980
cttagcatgc taatgtagta taattagcat ataatgagca gtgagaccaa cagtttcatt  17040
gccatcctgt ttttggtggt ttttggcaag cttctttatt gcaacctgtt ttatcagcaa  17100
ggtctttatg acctgtatct tgtgcagacc tcctatctca ttctgttacg taggatgctt  17160
aacttactgg gaatgcggcc cagcaggtct cagccttatt ttacccagcc cctattcaag  17220
atgtaggcac tctggttcaa acacctgaca ttttcccct cccttttgta agaaaaccct  17280
```

350

```
taatcctaag ggttgcagag ggacaaagat ccatcttcta taacttcttc atgctgaata  17340
gggtgatgat attcctgctt aactattagg gcctcttgta tccatggtag agaggggttc  17400
agtcagaaag ggccagtatg gtgagggcca ttcataactc ttagttctga caaaaggtga  17460
tatccaaagt cctccaatca gtgctgcagt ccatttcctt tgattcggga gtctcctccg  17520
tctcatccct tctgtggttc tccagaaaga tgttaccaga aaggggtccc gatccagacc  17580
ccaagggaga gggttcttgg atcttgcaca aggtagaatt cagggtgagt ccatagagta  17640
aagtgaaagc aagtttatta agacagtaaa ggaataaaag aatggctact tcataggcag  17700
aggagctgca gcaagcatct tttacacgta gtctctgaag agctccttac aatagagttt  17760
ccagggcaaa actgccacct taaagggcaa gcgatgtcta aggttttgcc aaattgcttc  17820
cagagtggtt gctctagaat aaccagtggc cagcagtgca ggagagcacc tgcttccctg  17880
ttcccttggg tgcattcatt tttcatttgg acagatata  ctaaaaaagt tggggataag  17940
gattttggca gcataattgt ggagacagtg ttgccaattc ctgctccagg accatatggt  18000
tcagctgaat atggcagaac cagattctct gcctggctga atgtccctgt cccctgccct  18060
gagtctcttc caaaatacgc tgagtgtctc ttctcctttc cgcccatcca ggtgcctcta  18120
gataaccata tccctgagag ggcagggtct gggagccaag tccccaccga acccaagaaa  18180
ctagaggaga atgaggttat ccccaagaga atctcacccg ttgaagagag tgaggatgtg  18240
tccaacaagg tgtcaatgtc cagcactgtg cagggcagca acatctttga gagaacggag  18300
gtcctggcag gtaagtccca tgctgcttat aagatgcctt gaaggtggaa tggggctcag  18360
cggggagag  cacctgcagg cagggatgcc tccagccatg aggctccttg gtgccccttc  18420
cttttgccta ttcaggttgc cctagaacat tgaaagacta caccttcctt atggggtggc  18480
tctgactgtg cagcctggtg gagggagagg aaaaagcacc tatcaaagtc ttctggaaaa  18540
taggcaattg agtcattctt ctgccttaag tctttctcat ttattttgca aaggactttc  18600
actgtataag tttggcatct gggagttaat cattaaaagt taatttccct tgtaagtctg  18660
gaggctcctt cgaattgggt tagcttcccc tcccctact  ctatcacttg gcagccttgt  18720
gaccttggct gagaagcttt cgaacttgat gagcctcagt ttccttatct gtaaaatggg  18780
tacagtgata ccttctgggg ttgatataat gagtccatga aaaataaaat atgaaataac  18840
tttgcacact ataaagggct attccgattt ggcctcagtt cagagttctt tactggaatg  18900
tgcggtgagg aatgctttgt cccaggtgtt gacaaaaggg atggagggaa ctccccaagg  18960
tcatggccga gggcagcctg gatgaaccgg cctggcaagt gggcaccctg ggcccatgct  19020
gggtaactcc tgtctcctgg gaatcaacag agccagcagc tccaaggagg cttgagctat  19080
agggacagag cctggcttca tccaggacag atggaaggtc tcacctgcct cttgtaaaga  19140
gggttcctgg gagcacagcc cctgatgact gggcccacct cagccctgac cctggcttcc  19200
tggtatctga gccaaagttc tttttacttt tctttcagaa gtaaaaagat ttgcataaga  19260
ctttggattt gcataaggtt ttgctctaat taactaaagg tgctattgct tctaaagaaa  19320
aatttgaaaa ccactgatta atctaagcac ctgcttctta tacatgggga gactgaggcc  19380
caggctttag gccacatagt aagaaaagaa ctgaagccag gttatctctt taatcttcca  19440
tttgagaatt atacaagcct aagagcctca tgtgaaaagt tatattgtta gctggtgtgg  19500
tggaatcccc cattccagaa gctttaatca gcacccagga gccttattaa atgcttgctg  19560
tatgctgtat gattcctgtg cccctgattg agtccgtaca acacaaaact cagtctaaag  19620
aacttatccg aagtcacaaa gctggaagtg gcagacctgg catttggact gaggaccaca  19680
gtcagcttct gagaatgtgc ttgaaacttg accctgtggg gcatcccagc gcagacccag  19740
ggcctcgtgg aggaactggg gtcatcagag ggaaaggtga tagagacaag aatggggttg  19800
atgcctgata ttccatgtgc ttgctctggc acctcctggg ggtacttttt tgttgctttt  19860
tcataggatt ttacccaaga aagaaccttg cttgactcct ctgtgccact ctgtccccat  19920
tgtgtacata gatttgtagt gtgtgcaggg atggaaaatt aatcttctta gcccgagtaa  19980
gaccgaatta gggaactcaa tctgccacag aagggattct atgaagcatc cctgccccta  20040
gcaaacagga atgagtcatt caggccacct ggcagagtgg acaggccaga cccactcact  20100
gttagaagcc catctctgcc caacactagg caggttctcc tctcggagcc tgaaagtatc  20160
```

351

```
atttattaag cacctcctgt tgtgcacacc tgattcaggg ggttcgggac acagatataa   20220
accttaaacc cttacagtta atgaatcttg agaatatgct atgcactagg cattgttcta   20280
agcactttga gtggattaat ttatttaatc cttaggacaa atgtatgaga aaggtatggc   20340
tcttcccatt ttgcggtagg gagatgaagg aaacttgccc caaatcacac agccaggaag   20400
taggagaggt aggagtggaa accaggcctt agctactgag ttctgtatgt aattgtaaca   20460
taagagtttg gaattagtat gttctgcatg tgtgcacttt gaatgtacat acctgtctat   20520
gaagtgtagg ctatataggt aaatatgcac acaggagag ctagagagtg ccctgtgcta   20580
aggactgcag gataaatatg tctacaggga tttccatagc ctacggtttt ctcctgttcc   20640
tggttcagtt agtgctagac tgttgcaggg gagtccgcgt ggtgtttgga aagagcctag   20700
gctttagatt caggcagatg tgggttaaaa tagtggcctt ggccgagtgc ggtggctcac   20760
gcctgtaatc ccagcacttt gggaggccga gatgggcaag gtcaggagtt caagaccagc   20820
ctggccaaca tagtgaaacc ctatctctac taaaaataca aaaattagcc gggcatggtg   20880
gcacgtgcct ataatcccag ctactcagga ggctgaggca ggagaattgc ttgaacctgg   20940
gaggtggagg ttgcagtaag ccgagatcac gccactgcac tcagctcggg caacagagtg   21000
agacttcgtc tcaaaaagaa aaaggagtgg ccttaccact agccctgtgg tcttcagtga   21060
cttaaaatgc caacgaccca cttcttataa ctggggtcat gaggtcaact aaataaggc   21120
atcagcttgc ctggcacagg cagtggtgat ggtgaggatg tctggttgta agagaactga   21180
cagtgggggga aagaggggtt catccttagg tcctgatgag gagctctgac ccccgcctct   21240
tctctctcct cctctccagc tctgattgtg ggtggcatcg tgggcatcct ctttgccgtc   21300
ttcctgatcc tactgctcat gtaccgtatg aagaagaagg atgaaggcag ctatgacctg   21360
ggcaagaaac ccatctacaa gaaagccccc accaatgagt tctacgcgtg aagcttgctt   21420
gtgggcactg gcttggactt tagcggggag ggaagccagg ggattttgaa gggtggacat   21480
tagggtaggg tgaggtcaac ctaatactga cttgtcagta tctccagctc tgattacctt   21540
tgaagtgttc agaagagaca ttgtcttcta ctgttctgcc aggttcttct tgagctttgg   21600
gcctcagttg ccctggcaga aaaatggatt caacttggcc tttctgaagg caagactggg   21660
attggatcac ttcttaaact tccagttaag aatctaggtc cgccctcaag cccatactga   21720
ccatgcctca tccagagctc ctctgaagcc aggggctaa cggatgttgt gtggagtcct   21780
ggctggaggt cctcccccag tggccttcct cccttccttt cacagccggt ctctctgcca   21840
ggaaatgggg gaaggaacta gaaccacctg caccttgaga tgtttctgta aatgggtact   21900
tgtgatcaca ctacgggaat ctctgtggta tatacctggg gccattctag gctctttcaa   21960
gtgacttttg gaaatcaacc ttttttattt gggggggagg atggggaaaa gagctgagag   22020
tttatgctga aatggattta tagaatattt gtaaatctat ttttagtgtt tgttcgtttt   22080
tttaactgtt cattcctttg tgcagagtgt atatctctgc ctgggcaaga gtgtggaggt   22140
gccgaggtgt cttcattctc tcgcacattt ccacagcacc tgctaagttt gtatttaatg   22200
gtttttgttt ttgttttttgt ttgtttcttg aaaatgagag aagagccgga gagatgattt   22260
ttattaattt tttttttttt tttttttttt tactatttat agctttagat agggcctccc   22320
ttcccctctt ctttctttgt tctctttcat taaacccctt ccccagtttt tttttatact   22380
ttaaaccccg ctcctcatgg ccttggccct ttctgaagct gcttcctctt ataaaatagc   22440
ttttgccgaa acatagtttt tttttagcag atcccaaaat ataatgaagg ggatggtggg   22500
atatttgtgt ctgtgttctt ataatatatt attattcttc cttggttcta gaaaaatAga   22560
taaatatatt tttttcagga aatagtgtgg tgtttccagt ttgatgttgc tgggtggttg   22620
agtgagtgaa ttttcatgtg gctgggtggg tttttgcctt tttctcttgc cctgttcctg   22680
gtgccttctg atggggctgg aatagttgag gtggatggt ctacccttc tgccttctgt   22740
ttgggaccca gctggtgttc tttggtttgc tttcttcagg ctctagggct gtgctatcca   22800
atacagtaac cacatgcggc tgtttaaagt taagccaatt aaaatcacat aagattaaaa   22860
attccttcct cagttgcact aaccacgttt ctagaggcgt cactgtatgt agttcatggc   22920
tactgtactg acagcgagag catgtccatc tgttggacag cactattcta gagaactaaa   22980
```

352

```
ctggcttaac gagtcacagc ctcagctgtg ctgggacgac ccttgtctcc ctgggtagga   23040
ggggggggaa tggggggagg ctgatgaggc cccagctggg gcctgttgtc tgggaccctc   23100
cctctcctga gaggggaggc ctggtggctt agcctgggca ggtcgtgtct cctcctgacc   23160
ccagtggctg cggtgagggg aaccaccctc ccttgctgca ccagtggcca ttagctcccg   23220
tcaccactgc aacccagggt cccagctggc tgggtcctct tctgccccca gtgcccttcc   23280
ccttgggctg tgttggagtg agcacctcct ctgtaggcac ctctcacact gttgtctgtt   23340
actgattttt tttgataaaa agataataaa acctggtact ttctaaactg cttgcctctg   23400
tcattttcgt tcataacaag tcatcctttt tgggctctgt atccccttga tctcagtgga   23460
gcatgaagaa actccccgga ccaaatcccc tacgggtgcc agacatgccg ggggtgggca   23520
gagggtgggg gcagagaggt aagaaggcag gaaggggcct agagaagagg gaagacttca   23580
gaacatgcac cctgatggcc tatgcagcat atcacccta cttcaaggtt ttgtttaggt   23640
ggcactgtgt ttaaatagca aacacaaaaa tctttgcgtc agttgccatc catagaaatc   23700
aggaggtttc acataaaaat ccagatttct cacttttctt gggaaaaaga aataaaaaaa   23760
attggcaact gtcagcctgc atggcaacaa gagagctgct gagtggcagg cacccatcta   23820
ga                                                                  23822

<210>   573
<211>   1804
<212>   DNA
<213>   Homo sapiens

<400>   573
cgctccacct ctcaagcagc cagcgcctgc ctgaatctgt tctgcccct ccccacccat     60
ttcaccacca ccatgacacc gggcacccag tctcctttct tcctgctgct gctcctcaca    120
gtgcttacag ttgttacagg ttctggtcat gcaagctcta ccccaggtgg agaaaaggag    180
acttcggcta cccagagaag ttcagtgccc agctctactg agaagaatgc tgtgagtatg    240
accagcagcg tactctccag ccacagcccc ggttcaggct cctccaccac tcagggacag    300
gatgtcactc tggccccggc cacggaacca gcttcaggtt cagctgccac ctggggacag    360
gatgtcacct cggtcccagt caccaggcca gccctgggct ccaccacccc gccagcccac    420
gatgtcacct cagccccgga caacaagcca gccccgggct ccaccgcccc cccagcccac    480
ggtgtcacct cggccccgga caccaggccg gccccgggct ccaccgcccc cccagcccat    540
ggtgtcacct cggccccgga caacaggccc gccttgggct ccaccgcccc tccagtccac    600
aatgtcacct cggcctcagg ctctgcatca ggctcagctt ctactctggt gcacaacggc    660
acctctgcca gggctaccac aaccccagcc agcaagagca ctccattctc aattcccagc    720
caccactctg atactcctac cacccttgcc agccatagca ccaagactga tgccagtagc    780
actcaccata gcacggtacc tcctctcacc tcctccaatc acagcacttc tccccagttg    840
tctactgggg tctctttctt tttcctgtct tttcacattt caaacctcca gtttaattcc    900
tctctggaag atcccagcac cgactactac caagagctgc agagagacat ttctgaaatg    960
tttttgcaga tttataaaca aggggggtttt ctgggcctct ccaatattaa gttcaggcca   1020
ggatctgtgg tggtacaatt gactctggcc ttccgagaag gtaccatcaa tgtccacgac   1080
gtggagacac agttcaatca gtataaaacg gaagcagcct ctcgatataa cctgacgatc   1140
tcagacgtca gcgtgagtga tgtgccattt cctttctctg cccagtctgg ggctggggtg   1200
ccaggctggg gcatcgcgct gctggtgctg gtctgtgttc tggttgcgct ggccattgtc   1260
tatctcattg ccttggctgt ctgtcagtgc cgccgaaaga actacgggca gctggacatc   1320
tttccagccc gggataccta ccatcctatg agcgagtacc ccacctacca cacccatggg   1380
cgctatgtgc cccctagcag taccgatcgt agcccctatg agaaggtttc tgcaggtaat   1440
ggtggcagca gcctctctta cacaaaccca gcagtggcag ccacttctgc caacttgtag   1500
gggcacgtcg cccgctgagc tgagtggcca gccagtgcca ttccactcca ctcaggttct   1560
tcagggccag agcccctgca ccctgtttgg gctggtgagc tgggagttca ggtgggctgc   1620
```

353

```
tcacaccgtc cttcagaggc cccaccaatt tctcggacac ttctcagtgt gtggaagctc     1680
atgtgggccc ctgaggctca tgcctgggaa gtgttgtggt gggggctccc aggaggactg     1740
gcccagagag ccctgagata gcggggatcc tgaactggac tgaataaaac gtggtctccc     1800
actg                                                                  1804

<210>  574
<211>  7680
<212>  DNA
<213>  Homo sapiens

<400>  574
gaagagcaag aggcaggctc agcaaatggt tcagccccag tccccggtgg ctgtcagtca       60
aagcaagccc ggttgttatg acaatggaaa acactatcag ataaatcaac agtgggagcg      120
gacctaccta ggtaatgtgt tggtttgtac ttgttatgga ggaagccgag gttttaactg      180
cgaaagtaaa cctgaagctg aagagacttg ctttgacaag tacactggga acacttaccg      240
agtgggtgac acttatgagc gtcctaaaga ctccatgatc tgggactgta cctgcatcgg      300
ggctgggcga gggagaataa gctgtaccat cgcaaaccgc tgccatgaag ggggtcagtc      360
ctacaagatt ggtgacacct ggaggagacc acatgagact ggtggttaca tgttagagtg      420
tgtgtgtctt ggtaatggaa aaggagaatg gacctgcaag cccatagctg agaagtgttt      480
tgatcatgct gctgggactt cctatgtggt cggagaaacg tgggagaagc cctaccaagg      540
ctggatgatg gtagattgta cttgcctggg agaaggcagc ggacgcatca cttgcacttc      600
tagaaataga tgcaacgatc aggacacaag gacatcctat agaattggag acacctggag      660
caagaaggat aatcgaggaa acctgctcca gtgcatctgc acaggcaacg gccgaggaga      720
gtggaagtgt gagaggcaca cctctgtgca gaccacatcg agcggatctg gccccttcac      780
cgatgttcgt gcagctgttt accaaccgca gcctcacccc cagcctcctc cctatggcca      840
ctgtgtcaca gacagtggtg tggtctactc tgtggggatg cagtggttga agacacaagg      900
aaataagcaa atgctttgca cgtgcctggg caacggagtc agctgccaag agacagctgt      960
aacccagact tacggtggca acttaaatgg agagccatgt gtcttaccat tcacctacaa     1020
tggcaggacg ttctactcct gcaccacgga agggcgacag gacggacatc tttggtgcag     1080
cacaacttcg aattatgagc aggaccagaa atactctttc tgcacagacc acactgtttt     1140
ggttcagact caaggaggaa attccaatgg tgccttgtgc cacttcccct tcctatacaa     1200
caaccacaat tacactgatt gcacttctga gggcagaaga gacaacatga gtggtgtgg      1260
gaccacacag aactatgatg ccgaccagaa gtttgggttc tgccccatgg ctgcccacga     1320
ggaaatctgc acaaccaatg aaggggtcat gtaccgcatt ggagatcagt gggataagca     1380
gcatgacatg ggtcacatga tgaggtgcac gtgtgttggg aatggtcgtg gggaatggac     1440
atgcattgcc tactcgcaac ttcgagatca gtgcattgtt gatgacatca cttacaatgt     1500
gaacgacaca ttccacaagc gtcatgaaga ggggcacatg ctgaactgta catgcttcgg     1560
tcagggtcgg gcaggtggaa agtgtgatcc cgtcgaccaa tgccaggatt cagagactgg     1620
gacgttttat caaattggag attcatggga gaagtatgtg catggtgtca gataccagtg     1680
ctactgctat ggccgtggca ttggggagtg gcattgccaa cctttacaga cctatccaag     1740
ctcaagtggt cctgtcgaag tatttatcac tgagactccg agtcagccca actcccaccc     1800
catccagtgg aatgcaccac agccatctca catttccaag tacattctca ggtggagacc     1860
taaaaattct gtaggccgtt ggaaggaagc taccatacca ggccacttaa actcctacac     1920
catcaaaggc ctgaagcctg tgtggtata cgagggccag ctcatcagca tccagcagta     1980
cggccaccaa gaagtgactc gctttgactt caccaccacc agcaccagca cacctgtgac     2040
cagcaacacc gtgacaggag agacgactcc ctttttctcct cttgtggcca cttctgaatc     2100
tgtgaccgaa atcacagcca gtagctttgt ggtctcctgg gtctcagctt ccgacaccgt     2160
gtcgggattc cgggtggaat atgagctgag tgaggaggga gatgagccac agtacctgga     2220
```

354

```
tcttccaagc acagccactt ctgtgaacat ccctgacctg cttcctggcc gaaaatacat   2280
tgtaaatgtc tatcagatat ctgaggatgg ggagcagagt ttgatcctgt ctacttcaca   2340
aacaacagcg cctgatgccc ctcctgaccc gactgtggac caagttgatg acacctcaat   2400
tgttgttcgc tggagcagac cccaggctcc catcacaggg tacagaatag tctattcgcc   2460
atcagtagaa ggtagcagca cagaactcaa ccttcctgaa actgcaaact ccgtcaccct   2520
cagtgacttg caacctggtg ttcagtataa catcactatc tatgctgtgg aagaaaatca   2580
agaaagtaca cctgttgtca ttcaacaaga aaccactggc accccacgct cagatacagt   2640
gccctctccc agggacctgc agtttgtgga agtgacagac gtgaaggtca ccatcatgtg   2700
gacaccgcct gagagtgcag tgaccggcta ccgtgtggat gtgatccccg tcaacctgcc   2760
tggcgagcac gggcagaggc tgcccatcag caggaacacc tttgcagaag tcaccgggct   2820
gtcccctggg gtcacctatt acttcaaagt ctttgcagtg agccatggga gggagagcaa   2880
gcctctgact gctcaacaga caaccaaact ggatgctccc actaacctcc agtttgtcaa   2940
tgaaactgat tctactgtcc tggtgagatg gactccacct cgggcccaga taacaggata   3000
ccgactgacc gtgggcctta cccgaagagg ccagcccagg cagtacaatg tgggtccctc   3060
tgtctccaag taccccctga ggaatctgca gcctgcatct gagtacaccg tatccctcgt   3120
ggccataaag ggcaaccaag agagccccaa agccactgga gtctttacca cactgcagcc   3180
tgggagctct attccacctt acaacaccga ggtgactgag accaccatcg tgatcacatg   3240
gacgcctgct ccaagaattg gttttaagct gggtgtacga ccaagccagg gaggagaggc   3300
accacgagaa gtgacttcag actcaggaag catcgttgtg tccggcttga ctccaggagt   3360
agaatacgtc tacaccatcc aagtcctgag agatggacag gaaagagatg cgccaattgt   3420
aaacaaagtg gtgacaccat tgtctccacc aacaaacttg catctggagg caaaccctga   3480
cactggagtg ctcacagtct cctgggagag gagcaccacc ccagacatta ctggttatag   3540
aattaccaca accccctacaa acggccagca gggaaattct ttggaagaag tggtccatgc   3600
tgatcagagc tcctgcactt ttgataacct gagtcccggc ctggagtaca atgtcagtgt   3660
ttacactgtc aaggatgaca aggaaagtgt ccctatctct gataccatca tcccagctgt   3720
tcctcctccc actgacctgc gattcaccaa cattggtcca gacaccatgc gtgtcacctg   3780
ggctccaccc ccatccattg atttaaccaa cttcctggtg cgttactcac ctgtgaaaaa   3840
tgaggaagat gttgcagagt tgtcaatttc tccttcagac aatgcagtgg tcttaacaaa   3900
tctcctgcct ggtacagaat atgtagtgag tgtctccagt gtctacgaac aacatgagag   3960
cacacctctt agaggaagac agaaaacagg tcttgattcc ccaactggca ttgacttttc   4020
tgatattact gccaactctt ttactgtgca ctggattgct cctcgagcca ccatcactgg   4080
ctacaggatc cgccatcatc ccgagcactt cagtgggaga cctcgagaag atcgggtgcc   4140
ccactctcgg aattccatca ccctcaccaa cctcactcca ggcacagagt atgtggtcag   4200
catcgttgct cttaatggca gagaggaaag tcccttattg attggccaac aatcaacagt   4260
ttctgatgtt ccgagggacc tggaagttgt tgctgcgacc cccaccagcc tactgatcag   4320
ctgggatgct cctgctgtca cagtgagata ttacaggatc acttacggag aaacaggagg   4380
aaatagccct gtccaggagt tcactgtgcc tgggagcaag tctacagcta ccatcagcgg   4440
ccttaaacct ggagttgatt ataccatcac tgtgtatgct gtcactggcc gtggagacag   4500
ccccgcaagc agcaagccaa tttccattaa ttaccgaaca gaaattgaca aaccatccca   4560
gatgcaagtg accgatgttc aggacaacag cattagtgtc aagtggctgc cttcaagttc   4620
ccctgttact ggttacagag taaccaccac tcccaaaaat ggaccaggac caacaaaaac   4680
taaaactgca ggtccagatc aaacagaaat gactattgaa ggcttgcagc ccacagtgga   4740
gtatgtggtt agtgtctatg ctcagaatcc aagcggagag agtcagcctc tggttcagac   4800
tgcagtaacc aacattgatc gccctaaagg actggcattc actgatgtgg atgtcgattc   4860
catcaaaatt gcttgggaaa gcccacaggg gcaagtttcc aggtacaggg tgacctactc   4920
gagccctgag gatggaatcc atgagctatt ccctgcacct gatggtgaag aagacactgc   4980
agagctgcaa ggcctcagac cgggttctga gtacacagtc agtgtggttg ccttgcacga   5040
tgatatggag agccagcccc tgattggaac ccagtccaca gctattcctg caccaactga   5100
```

                                   355

```
cctgaagttc actcaggtca cacccacaag cctgagcgcc cagtggacac cacccaatgt    5160
tcagctcact ggatatcgag tgcgggtgac ccccaaggag aagaccggac caatgaaaga    5220
aatcaacctt gctcctgaca gctcatccgt ggttgtatca ggacttatgg tggccaccaa    5280
atatgaagtg agtgtctatg ctcttaagga cactttgaca agcagaccag ctcaggtgt     5340
tgtcaccact ctggagaatg tcagcccacc aagaagggct cgtgtgacag atgctactga    5400
gaccaccatc accattagct ggagaaccaa gactgagacg atcactggct ccaagttga     5460
tgccgttcca gccaatggcc agactccaat ccagagaacc atcaagccag atgtcagaag    5520
ctacaccatc acaggtttac aaccaggcac tgactacaag atctacctgt acaccttgaa    5580
tgacaatgct cggagctccc ctgtggtcat cgacgcctcc actgccattg atgcaccatc    5640
caacctgcgt ttcctggcca ccacacccaa ttccttgctg gtatcatggc agccgccacg    5700
tgccaggatt accggctaca tcatcaagta tgagaagcct gggtctcctc ccagagaagt    5760
ggtccctcgg ccccgccctg gtgtcacaga ggctactatt actggcctgg aaccgggaac    5820
cgaatataca atttatgtca ttgccctgaa gaataatcag aagagcgagc ccctgattgg    5880
aaggaaaaag acagacgagc ttccccaact ggtaaccctt ccacacccca atcttcatgg    5940
accagagatc ttggatgttc cttccacagt tcaaaagacc cctttcgtca cccaccctgg    6000
gtatgacact ggaaatggta ttcagcttcc tggcacttct ggtcagcaac ccagtgttgg    6060
gcaacaaatg atctttgagg aacatggttt taggcggacc acaccgccca aacggccac     6120
ccccataagg cataggccaa gaccataccc gccgaatgta ggacaagaag ctctctctca    6180
gacaaccatc tcatgggccc cattccagga cacttctgag tacatcattt catgtcatcc    6240
tgttggcact gatgaagaac ccttacagtt cagggttcct ggaacttcta ccagtgccac    6300
tctgacaggc ctcaccagag gtgccaccta caacatcata gtggaggcac tgaaagacca    6360
gcagaggcat aaggttcggg aagaggttgt taccgtgggc aactctgtca acgaaggctt    6420
gaaccaacct acggatgact cgtgctttga cccctacaca gtttcccatt atgccgttgg    6480
agatgagtgg gaacgaatgt ctgaatcagg ctttaaactg ttgtgccagt gcttaggctt    6540
tggaagtggt catttcagat gtgattcatc tagatggtgc catgacaatg gtgtgaacta    6600
caagattgga gagaagtggg accgtcaggg agaaaatggc cagatgatga gctgcacatg    6660
tcttgggaac ggaaaaggag aattcaagtg tgaccctcat gaggcaacgt gttacgatga    6720
tgggaagaca taccacgtag gagaacagtg gcagaaggaa tatctcggtg ccatttgctc    6780
ctgcacatgc tttggaggcc agcggggctg gcgctgtgac aactgccgca gacctggggg    6840
tgaacccagt cccgaaggca ctactggcca gtcctacaac cagtattctc agagatacca    6900
tcagagaaca aacactaatg ttaattgccc aattgagtgc ttcatgcctt tagatgtaca    6960
ggctgacaga gaagattccc gagagtaaat catctttcca atccagagga acaagcatgt    7020
ctctctgcca agatccatct aaactggagt gatgttagca gacccagctt agagttcttc    7080
tttctttctt aagccctttg ctctggagga agttctccag cttcagctca actcacagct    7140
tctccaagca tcaccctggg agtttcctga gggttttctc ataaatgagg gctgcacatt    7200
gcctgttctg cttcgaagta ttcaataccg ctcagtattt taaatgaagt gattctaaga    7260
tttggtttgg gatcaatagg aaagcatatg cagccaacca agatgcaaat gttttgaaat    7320
gatatgacca aaattttaag taggaaagtc acccaaacac ttctgctttc acttaagtgt    7380
ctggcccgca atactgtagg aacaagcatg atcttgttac tgtgatattt taaatatcca    7440
cagtactcac tttttccaaa tgatcctagt aattgcctag aaatatcttt ctcttacctg    7500
ttatttatca attttttccca gtattttat acggaaaaaa ttgtattgaa aacacttagt    7560
atgcagttga taagaggaat ttggtataat tatggtgggt gattattttt tatactgtat    7620
gtgccaaagc tttactactg tggaaagaca actgttttaa taaaagattt acattccaca    7680
```

<210> 575
<211> 2286
<212> DNA
```

356
```

```
cctgtgagca ccacgtcaac ggctcccggc ccccatgcac gggggaggga gataccccca      60
agtgtagcaa gatctgtgag cctggctaca gcccgaccta caaacaggac aagcactacg     120
gatacaattc ctacagcgtc tccaatagcg agaaggacat catggccgag atctacaaaa     180
acggccccgt ggagggagct ttctctgtgt attcggactt cctgctctac aagtcaggag     240
tgtaccaaca cgtcaccgga gagatgatgg gtggccatgc catccgcatc ctgggctggg     300
gagtggagaa tggcacaccc tactggctgg ttgccaactc ctggaacact gactggggtg     360
acaatggctt ctttaaaata ctcagaggac aggatcactg tggaatcgaa tcagaagtgg     420
tggctggaat tccacgcacc gatcagtact gggaaaagat ctaatctgcc gtgggcctgt     480
cgtgccagtc ctgggggcga gatcggggta gaaatgcatt ttattcttta agttcacgta     540
agatacaagt ttcagacagg gtctgaagga ctggattggc caaacatcag acctgtcttc     600
caaggagacc aagtcctggc tacatcccag cctgtggtta cagtgcagac aggccatgtg     660
agccaccgct gccagcacag agcgtccttc cccctgtaga ctagtgccgt aggagtacct     720
gctgccccag ctgactgtgg ccccctccgt gatccatcca tctccaggga gcaagacaga     780
gacgcaggaa tggaaagcgg agttcctaac aggatgaaag ttcccccatc agttcccca     840
gtacctccaa gcaagtagct ttccacattt gtcacagaaa tcagaggaga gacggtgttg     900
gagccctttg gagaacgcca gtctcccagg ccccctgcat ctatcgagtt tgcaatgtca     960
caacctctct gatcttgtgc tcagcatgat tctttaatag aagtttattt ttttcgtgca    1020
ctctgctaat catgtgggtg agccagtgga acagcgggag acctgtgcta gttttacaga    1080
ttgcctcctt atgacgcggc tcaaaaggaa accaagtggt caggagttgt ttctgaccca    1140
ctgatctcta ctaccacaag gaaaatagtt taggagaaac cagcttttac tgttttgaa     1200
aaattacagc ttcaccctgt caagttaaca aggaatgcct gtgccaataa aaggtttcgg    1260
aattccgtcc cctttcaagt tttagggaaa tttaactgaa gtgtatacaa attagacatt    1320
gctaatatgt acaaaagtat tttatacggt ttttgaacga tctagctatt tgcaataaac    1380
aggatgttac aaaaacagtc caataatgca tttcctatta agaagcacaa tacacaacat    1440
aattcaattt tattaaaaaa taacttcaaa atgtagaaca atcccctta ggaagaaaag     1500
ctatttctgt agttcactct gtcagtaaac acacaagttg aacgctgcag cagagggctg    1560
tccttttcca tggagaaaag aaatgaggct tctagggcct atctttctg ggtaaaaatt      1620
ccacctacag ctgagatggg cagttattgc ctgtggtagg cagaatttga aaatgcccct    1680
tccccctttc aatgagctaa tctccagaac ccgtgaatat gatgagatga gacagtactc    1740
ctgcaattat gttctatcgc acaatcaacc ttaaaatata tctgtgggct tgagctaatc    1800
atatgcccct aaaacaggag gacgggagag agatatgaag catgagaaag agcaggaagg    1860
ctggtttgaa gctggagggg accacataag aaggaatgca ggcagccttg aggtgagaga    1920
ggggcctcca gctgagagcc agcaaagaac tgaattccgc caacaacctg aatgaactta    1980
gaagcagatt cttcccccaga gcctccatga aggaatgttg tcctgccaac ccttatttca    2040
gcctttaaga ccctgagcag agaatccagc cacactgtgc cagactcatg agctacagaa    2100
ctgctatggg tattgttttt taaactgcta aatttggggt aatttgtcac acagcaatag    2160
aaaactaata cactgcccaa gggtaacttt cttaaccta attacatttg gcagtttctg      2220
cttgggttct gaatgcattt ttttacacaa agctctgctg gaaaaactga ataacgcgct    2280
ggcagc                                                              2286
```

```
cctctctgtg ctgggttcct ccagtgtaga ggagaggcag gtacagcctg tcctcctggg      60
gacatggcat gagggccgcg tcctcacagc gcattctgtg ttccagcatc cccgaccagc     120
cccaaggtct tcccgctgag cctcgacagc accccccaag atgggaacgt ggtcgtcgca     180
tgcctggtcc agggcttctt cccccaggag ccactcagtg tgacctggag cgaaagcgga     240
cagaacgtga ccgccagaaa cttcccacct agccaggatg cctccgggga cctgtacacc     300
acgagcagcc agctgaccct gccggccaca cagtgcccag acggcaagtc cgtgacatgc     360
cacgtgaagc actacacgaa ttccagccag gatgtgactg tgccctgccg aggtcagagg     420
gcaggctggg gagtggggcg gggccacccc gtcctgccct gacactgcgc ctgcacccgt     480
gttccccaca gggagccgcc ccttcactca caccagagtg gaccgcgggc cgagcccag     540
gaggtggtgg tggacaggcc aggaggggcg aggcgggggc acggggaagg gcgttctgac     600
cagctcaggc catctctcca ctccagttcc cccacctccc ccatgctgcc accccgact     660
gtcgctgcac cgaccggccc tcgaggacct gctcttaggt tcagaagcga acctcacgtg     720
cacactgacc ggcctgagag atgcctctgg tgccaccttc acctggacgc cctcaagtgg     780
gaagagcgct gttcaaggac cacctgagcg tgacctctgt ggctgctaca gcgtgtccag     840
tgtcctgcct ggctgtgccc agccatggaa ccatggggag accttcacct gcactgctgc     900
ccaccccgag ttgaagaccc cactaaccgc caacatcaca aaatccggtg ggtccagacc     960
ctgctcgggg ccctgctcag tgctctggtt tgcaaagcat attcccggcc tgcctcctcc    1020
ctcccaatcc tgggctccag tgctcatgcc aagtacagag ggaaactgag gcaggctgag    1080
gggccaggac acagcccagg gtgcccacca gagcagaggg gctctctcat cccctgccca    1140
gcccccctgac ctggctctct accctccagg aaacacattc cggcccgagg tccacctgct    1200
gccgccgccg tcggaggagc tggccctgaa cgagctggtg acgctgacgt gcctggcacg    1260
tggcttcagc cccaaggatg tgctggttcg ctggctgcag gggtcacagg agctgccccg    1320
cgagaagtac ctgacttggg catcccggca ggagcccagc cagggcacca ccaccttcgc    1380
tgtgaccagc atactgcgcg tggcagccga ggactggaag aaggggggaca ccttctcctg    1440
catggtgggc cacgaggccc tgccgctggc cttcacacag aagaccatcg accgcttggc    1500
gggtaaaccc acccatgtca atgtgtctgt tgtcatggcg gaggtggacg gcacctgcta    1560
ctgagccgcc cgcctgtccc cacccctgaa taaactccat gctcccccaa gcagccccac    1620
gcttccatcc ggcgcctgtc tgtccatcct cagggtctca gcacttggga aagggccagg    1680
gcatggacag ggaagaatac cccctgccct gagcctcggg gggcccctgg caccccatg    1740
agactttcca ccctggtgtg agtgtgagtt gtgagtgtga gagtgtgtgg tgcaggagg    1799
```

<210>   577
<211>   2259
<212>   DNA
<213>   Homo sapiens

<400>   577
```
gttctcccct tcccggcttt cggtccggag gaggcgggag cagcttccct gttctgatcc      60
tatcgcgggc ggcgcagggc cggcttggcc ttccgtggga cggggagggg ggcgggatgt     120
gtcacccaaa taccagtggg gacggtcggt ggtggaacca gccgggcagg tcgggtagag     180
tataagagcc ggagggagcg gccgggcggc agacgcctgc agaccatccc agacgccgga     240
gcccgagccc cgccgagtcc ccgcgcctca tccgcccgcg tccggtccgc gttcctccgc     300
cccaccatgg ctcggggccc cggcctcgcg ccgccaccgc tgcggctgcc gctgctgctg     360
ctggtgctgg cggcggtgac cggccacacg gccgcgcagg acaactgcac gtgtcccacc     420
aacaagatga ccgtgtgcag ccccgacggc cccggcggcc gctgccagtg ccgcgcgctg     480
ggctcgggca tggcggtcga ctgctccacg ctgacctcca gtgtctgct gctcaaggcg     540
cgcatgagcg cccccaagaa cgcccgcacg ctggtgcggc cgagtgagca cgcgctcgtg     600
gacaacgatg cctctacga ccccgactgc gaccccgagg ccgcttcaa ggcgcgccag     660
tgcaaccaga cgtcggtgtg ctggtgcgtg aactcggtgg gcgtgcgccg cacggacaag     720
```

<center>358</center>

```
ggcgacctga gcctacgctg cgatgacctg gtgcgcaccc accacatcct cattgacctg    780
cgccaccgcc ccaccgccgg cgccttcaac cactcagacc tggacgccga gctgaggcgg    840
ctcttccgcg agcgctatcg gctgcacccc aagttcgtgg cggccgtgca ctacgagcag    900
cccaccatcc agatcgagct gcggcagaac acgtctcaga aggccgccgg tgaagtggat    960
atcggcgatg ccgcctacta cttcgagagg gacatcaagg gcgagtctct attccagggc   1020
cgcggcggcc tggacttgcg cgtgcgcgga gaacccctgc aggtggagcg cacgctcatc   1080
tattacctgg acgagattcc cccgaagttc tccatgaagc gcctcaccgc cggcctcatc   1140
gccgtcatcg tggtggtcgt ggtggccctc gtcgccggca tggccgtcct ggtgatcacc   1200
aaccggagaa agtcggggaa gtacaagaag gtggagatca aggaactggg ggagttgaga   1260
aaggaaccga gcttgtaggt acccggcggg gcaggggatg gggtggggta ccggatttcg   1320
gtatcgtccc agacccaagt gagtcacgct tcctgattcc tcggcgcaaa ggagacgttt   1380
atcctttcaa attcctgcct tcccctccc ttttgcgcac acaccaggtt taatagatcc    1440
tggcctcagg gtctcctttc tttctcactt ctgtcttgaa ggaagcattt ctaaaatgta   1500
tccccctttcg gtccaacaac aggaaacctg actggggcag tgaaggaagg gatggcacag   1560
cgttatgtgt aaaaaacaag tatctgtatg acaacccggg atcgtttgca agtaactgaa   1620
tccattgcga cattgtgaag gcttaaatga gtttagatgg gaaatagcgt tgttatcgcc   1680
ttgggtttaa attatttgat gagttccact tgtatcatgg cctacccgag gagaagagga   1740
gtttgttaac tgggcctatg tagtagcctc atttaccatc gtttgtatta ctgaccacat   1800
atgcttgtca ctgggaaaga agcctgtttc agctgcctga acgcagtttg gatgtctttg   1860
aggacagaca ttgcccggaa actcagtcta tttattcttc agcttgccct tactaccact   1920
gatattggta atgttctttt ttgtaaaatg tttgtacata tgttgtcttt gataatgttg   1980
ctgtaatttt ttaaaataaa acacgaattt aataaaatat gggaaaggca caaaccagaa   2040
gttggcattt gtgaaaagtc cctccagatt tctatcactt tggtctctaa tttcccaaga   2100
cttgtatttt tttttattt caaattataa cactttttt tcccccagaa gtgggtgttt     2160
catgttgcta ctctggtgtg tcccaagata tcctaactgg ccagtgtaaa tgctattctt   2220
tctaaataag attatttgga aacttccttc aaactgcag                          2259
```

<210>   578
<211>   4139
<212>   DNA
<213>   Homo sapiens

<400>   578
```
ccgctccacc tctcaagcag ccagcgcctg cctgaatctg ttctgccccc tccccaccca     60
tttcaccacc accatgacac cgggcaccca gtctcctttc ttcctgctgc tgctcctcac    120
agtgcttaca gttgttacag gttctggtca tgcaagctct accccaggtg gagaaaagga    180
gacttcggct acccagagaa gttcagtgcc cagctctact gagaagaatg ctgtgagtat    240
gaccagcagc gtactctcca gccacagccc cggttcaggc tcctccacca ctcaggacaa    300
ggatgtcact ctggccccgg ccacggaacc agcttcaggt tcagctgcca cctggggaca    360
ggatgtcacc tcggtcccag tcaccaggcc agccctgggc tccaccaccc cgccagccca    420
cgatgtcacc tcagccccgg acaacaagcc agccccgggc tccaccgccc cccagccca    480
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    540
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    600
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    660
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    720
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    780
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    840
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc cccagccca    900
```

```
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca    960
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1020
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1080
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1140
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1200
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1260
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1320
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1380
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1440
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1500
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1560
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1620
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1680
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1740
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1800
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1860
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1920
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   1980
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2040
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2100
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2160
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2220
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2280
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2340
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2400
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2460
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2520
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2580
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2640
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2700
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2760
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2820
cggtgtcacc tcggccccgg acaccaggcc ggccccgggc tccaccgccc ccccagccca   2880
tggtgtcacc tcggccccgg acaacaggcc cgccttgggc tccaccgccc ctccagtcca   2940
caatgtcacc tcggcctcag gctctgcatc aggctcagct tctactctgg tgcacaacgg   3000
cacctctgcc agggctacca caaccccagc cagcaagagc actccattct caattcccag   3060
ccaccactct gatactccta ccacccttgc cagccatagc accaagactg atgccagtag   3120
cactcaccat agctcggtac ctcctctcac ctcctccaat cacagcactt ctccccagtt   3180
gtctactggg gtctctttct ttttcctgtc ttttcacatt tcaaacctcc agtttaattc   3240
ctctctggaa gatcccagca ccgactacta ccaagagctg cagagagaca tttctgaaat   3300
gttttgcag atttataaac aaggggggttt tctgggcctc tccaatatta agttcaggcc    3360
aggatctgtg gtggtacaat tgactctggc cttccgagaa ggtaccatca atgtccacga   3420
cgtggagaca cagttcaatc agtataaaac ggaagcagcc tctcgatata acctgacgat   3480
ctcagacgtc agcgtgagtg atgtgccatt tcctttctct gcccagtctg gggctggggt   3540
gccaggctgg ggcatcgcgc tgctggtgct ggtctgtgtt ctggttgcgc tggccattgt   3600
ctatctcatt gccttggctg tctgtcagtg ccgccgaaag aactacgggc agctggacat   3660
ctttccagcc cgggataccat accatcctat gagcgagtac cccacctacc acacccatgg   3720
gcgctatgtg cccccctagca gtaccgatcg tagcccctat gagaaggttt ctgcaggtaa   3780
```

360

```
cggtggcagc agcctctctt acacaaaccc agcagtggca gccgcttctg ccaacttgta    3840
gggcacgtcg ccgctgagct gagtggccag ccagtgccat tccactccac tcaggttctt    3900
caggccagag cccctgcacc ctgtttgggc tggtgagctg ggagttcagg tgggctgctc    3960
acagcctcct tcagaggccc caccaatttc tcggacactt ctcagtgtgt ggaagctcat    4020
gtgggcccct gaggctcatg cctgggaagt gttgtggggg ctcccaggag gactggccca    4080
gagagccctg agatagcggg gatcctgaac tggactgaat aaaacgtggt ctcccactg     4139
```

<210> 579
<211> 1261
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> n=a,t,g or c

<400> 579
```
tgggaagagg atgatcctaa acaaagctct gatgctgggg gcccttgccc tgaccaccgt      60
gatgagcccc tgtggaggtg aagacattgt ggctgaccac gtcgcctctt atggtgtaaa     120
cttgtaccag tcttacggtc cctctggcca gtacacccat gaatttgatg gagatgagca     180
gttctacgtg gacctgggga ggaaggagac tgtctggtgt ttgcctgttc tcagacaatt     240
tagatttgac ccgcaatttg cactgacaaa catcgctgtc ctaaaacata acttgaacag     300
tctgattaaa cgctccaact ctaccgctgc taccaatgag gttcctgagg tcacagtgtt     360
ttccaagtct cccgtgacac tgggtcagcc caacatcctc atctgtcttg tggacaacat     420
ctttcctcct gtggtcaaca tcacatggct gagcaatggg cactcagtca cagaaggtgt     480
ttctgagacc agcttcctct ccaagagtga tcattccttc ttcaagatca gttacctcac     540
cctcctccct tctgctgagg agagttatga ctgcaaggtg gagcactggg gcctggacaa     600
gcctcttctg aaacactggg agcctgagat tccagcccct atgtcagagc tcacagagac     660
tgtggtctgc gccctgggat tgtctgtggg cctcgtgggc attgtggtgg cactgtctt      720
catcatccga ggcctgcgtt cagttggtgc ttccagacac caagggccct tgtgaatccc     780
atcctggaat ggaaggtgca tcgccatcta caggagcaga agagtggact tgctacatga     840
cctagcatta ttttctggcc ccatttatca tatccctttt ctcctccaaa tgtttctcct     900
ctcacctctt ctgtgggact taaattgcta tatctgctca gagctcacaa atgcctttga     960
attatttccc tgacttcctg atttttttct tcttaagtgt tacctactaa gagttgcctg    1020
gagtaagcca cccagctacc taattcctca gtaacctcca tctataatct ccatggaagc    1080
aacaaattcc ctttatgaga tatatgtcaa attttttccat ctttcatcna gggctgactg    1140
aaaccgtggc taagaattgg gagactctct tgtttcaagc caatttaaca tcatttacca    1200
gatcatttgt catgtccagt aacacagaag caaccaacta cagtatagcc tgataacatg    1260
a                                                                     1261
```

<210> 580
<211> 756
<212> DNA
<213> Homo sapiens

<400> 580
```
ctggagacac agatcgaggc tctcaaggag gagctgctct tcatgaagaa gaaccacgaa      60
gaggaagtaa aaggcctaca agcccagatt gccagctctg ggttgaccgt ggaggtagat     120
gccccgaaat ctcaggacct ctccaagatc atggcagaca tccgggccca atatgacgag     180
```

361

```
ctggctcgga agaaccgaga ggagctagac aagtactggt ctcagcagat tgaggagagc    240
accacagtgg tcaccacaca gtctgctgag gttggagctg ctgagacgac gctcacagag    300
ctgagacgta cagtccagtc cttggagatc cgactggacc gcatgagaaa tctgaaggcc    360
agcttggaga acagcctgag ggaggtggag gcccgttacg ccctacagat ggagcagctc    420
aacgggatcc tgctgcacct tgagtcagag ctggcacaga cccgggcaga gggacagcgc    480
caggcccagg agtatgaggc cctgctgaac atcaaggtca agctggaggc tgagatcgcc    540
acctaccgcc gcctgctgga agatggcgag gactttaatc ttggtgatgc cttggacagc    600
agcaactcca tgcaaaccat ccaaaagacc accacccgcc ggatagtgga tggcaaagtg    660
gtgtctgaga ccaatgacac caaagttctg aggcattaag ccagcagaag acgggtacct    720
ttggggagca ggaggccaat aaaaagttca gagttc                               756
```

<210> 581
<211> 534
<212> DNA
<213> Homo sapiens

```
<400> 581
caggactcga cgtcggacct gatcccggcc ccacctctga gcaaggtccc tctgcagcag     60
aacttccagg acaaccaatt ccagggggaag tggtatgtgg taggcctggc agggaatgca    120
attctcagag aagacaaaga cccgcaaaag atgtatgcca ccatctatga gctgaaagaa    180
gacaagagct acaatgtcac ctccgtcctg tttaggaaaa agaagtgtga ctactggatc    240
aggactttg ttccaggttg ccagcccggc gagttcacgc tgggcaacat taagagttac    300
cctggattaa cgagttacct cgtccgagtg gtgagcacca actacaacca gcatgctatg    360
gtgttcttca gaaagtttc tcaaaacagg gagtacttca agatcacgct ctacgggaga    420
accaaggagc tgacttcgga actaaaggag aacttcatcc gcttctccaa atctctgggc    480
ctccctgaaa accacatcgt cttccccgtc cccatcgatc aatgcatcga cggc           534
```

<210> 582
<211> 594
<212> DNA
<213> Homo sapiens

```
<400> 582
gtcactcctg ccttcaccat gaagtccagc ggcctcttcc ccttcctggt gctgcttgcc     60
ctgggaactc tggcaccttg ggctgtggaa ggctctggaa agtccttcaa agctggagtc    120
tgtcctccta agaaatctgc ccagtgcctt agatacaaga acctgagtg ccagagtgac    180
tggcagtgtc cagggaagaa gagatgttgt cctgacactt gtggcatcaa atgcctggat    240
cctgttgaca ccccaaaccc aacaaggagg aagcctggga agtgcccagt gacttatggc    300
caatgtttga tgcttaaccc ccccaatttc tgtgagatgg atggccagtg caagcgtgac    360
ttgaagtgtt gcatgggcat gtgtgggaaa tcctgcgttt ccctgtgaa agcttgattc    420
ctgccatatg gaggaggctc tggagtcctg ctctgtgtgg tccaggtcct ttccaccctg    480
agacttggct ccaccactga tatcctcctt tggggaaagg cttggcacac agcaggcttt    540
caagaagtgc cagttgatca atgaataaat aaacgagcct atttctcttt gcac           594
```

<210> 583
<211> 527
<212> DNA
<213> Homo sapiens

```
<400> 583
ttggggctgt gctgggtttt cctcgttgct cttttaagag gtgtccagtg tcaggtgcag     60
```
```

```
ctggtggagt ctggggggagg cgtggtccag cctgggaggt ccctgagact ctcctgtgca     120
gtctctggac tcacctttag tagctatggt atgcactggg tccgccaggc tccaggcaag     180
gggctgcagt gggtggcagc tatatcatat gatggaagta ataaatacta cgcagactcc     240
ttgaagggcc gattcaccat ctccagagac aattccaaga acacgctgta tctgcaaatg     300
aacagcctga gatctgagga cacggctgtg tattactgtg cgagaggggc ggggattact     360
gatttttgga gtggttatta cgtcaactgg ttcgacccct ggggccaggg aaccctggtc     420
accgtctcct cagcttccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg     480
agcacctctg ggggcacagc ggccctgggc tgcctggtca aggacta               527
```

363